

SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: JONATHAN CREPEAU Examiner #: 75637 Date: 10/2/03
 Art Unit: 1746 Phone Number 305-0051 Serial Number: 09/901130
 Mail Box and Bldg/Room Location: CP3 7EJ Results Format Preferred (circle): PAPER DISK E-MAIL

If more than one search is submitted, please prioritize searches in order of need.

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

US20020039677

Title of Invention: Nonaqueous electrochemical apparatus

Inventors (please provide full names): Kazuya Iwamoto; Takafumi Oura; Kuniko Sanoda; Makino Hatazaki; Hiroshi Yoshizawa; Shinji Nakanishi

Earliest Priority Filing Date: 7/17/00

**For Sequence Searches Only* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.*

A compound, disclosed as usable as a surfactant, as set forth in either of claims 10 or 11 (attached).

STAFF USE ONLY **Type of Search** **Vendors and cost where applicable**

Searcher: <u>5</u>	NA Sequence (#) _____	STN _____
Searcher Phone #: _____	AA Sequence (#) _____	Dialog _____
Searcher Location: _____	Structure (#) _____	Questel/Orbit _____
Date Searcher Picked Up: <u>10/3/03</u>	Bibliographic _____	Dr. Link _____
Date Completed: <u>10/3/03</u>	Litigation _____	Lexis/Nexis _____
Searcher Prep & Review Time: <u>120 min</u>	Fulltext _____	Sequence Systems _____
Clerical Prep Time: _____	Patent Family _____	WWW/Internet _____
Online Time: <u>120 minutes</u>	Other _____	Other (specify) _____



STIC Search Report

EIC 1700

STIC Database Tracking Number: 105240

TO: Jonathan Crepeau
Location: CP3 7E01
Art Unit : 1746
October 6, 2003

Case Serial Number: 09/901130

From: John Calve
Location: EIC 1700
CP3/4-3D62
Phone: 308-4139

John.Calve@uspto.gov

Search Notes

09/901130
~~10/278,866~~

10/06/2003

=> file reg

FILE 'REGISTRY' ENTERED AT 10:36:41 ON 06 OCT 2003
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
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Property values tagged with IC are from the ZIC/VINITI data file
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STRUCTURE FILE UPDATES: 3 OCT 2003 HIGHEST RN 598296-84-5
DICTIONARY FILE UPDATES: 3 OCT 2003 HIGHEST RN 598296-84-5

=> d his

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L1 FILE 'LREGISTRY' ENTERED AT 08:57:52 ON 06 OCT 2003
STR

L2 FILE 'REGISTRY' ENTERED AT 09:11:45 ON 06 OCT 2003
50 S L1

L3 FILE 'LREGISTRY' ENTERED AT 09:37:04 ON 06 OCT 2003
STR L1

L4 FILE 'REGISTRY' ENTERED AT 09:39:07 ON 06 OCT 2003
50 S L3

L5 FILE 'LREGISTRY' ENTERED AT 09:39:29 ON 06 OCT 2003
STR L3

L6 FILE 'REGISTRY' ENTERED AT 09:48:45 ON 06 OCT 2003
50 S L5

L7 5250 S L5 FULL
SAVE L7 CREPEAU130/A

L8 982229 S PMS/CI

L9 1687 S L7 AND L8

L10 FILE 'LREGISTRY' ENTERED AT 09:50:33 ON 06 OCT 2003
STR L5

L11 FILE 'REGISTRY' ENTERED AT 10:01:14 ON 06 OCT 2003
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L12 STR L10

L13 0 S L12 SSS SAM SUB=L7

L14 STR L12

L15 STR L14

L16 0 S L14 SSS SAM SUB=L7

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L18 STR L1

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L20 STR L18

L21 50 S L20 SSS SAM SUB=L7

L22 SCR 2043

L23 22 S L20 NOT L22 SSS SAM SUB=L7

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L28 STR L26
L29 9 S L28 SSS SAM SUB=L7
L30 4 S L28 NOT L22 SSS SAM SUB=L7
L31 91 S L28 NOT L22 SSS FULL SUB=L7
SAVE L31 CREPEA130A/A
L32 0 S L31 AND L8

FILE 'HCA' ENTERED AT 10:13:31 ON 06 OCT 2003
L33 94 S L31
L34 91 S L33 AND 1907-2000/PY, PRY
L35 338124 S SOAP? OR SHAMPOO? OR DETERGEN? OR CLEAN? OR DISHWASH?(2N) (LIQ
L36 4 S L34 AND L35
L37 348913 S SURFACT? OR BIOSURFACT? OR HYDROTROP? OR DETERG? OR ABSTERG?
L38 58 S L34 AND L37
L39 239769 S FUELCELL? OR BATTERY? OR BATTERIES? OR (FUEL? OR ELECTROCHEM?
L40 3 S L38 AND L39
L41 4 S L34 AND L39
L42 8 S L36 OR L40 OR L41
L43 81534 S SURFAC?(2N) (ACTIV? OR AGENT?)
L44 13 S L34 AND L43
E US20020039677/PN
L45 1 S E3
L46 233683 S 52/SX, SC
L47 1 S L34 AND L46
L48 9 S L42 OR L45 OR L47
L49 92 S L34 OR L45

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L50 STR L5

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L51 2 S L50 NOT L22 SSS SAM SUB=L7
L52 43 S L50 NOT L22 SSS FULL SUB=L7
SAVE L52 CREPEA130B/A
L53 9 S L52 AND 1-5/P
L54 4 S L31 AND 1-5/P

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L55 31 S L52
L56 7 S L53
L57 3 S L54
L58 0 S L55 AND L39
L59 7 S L55 AND L37
L60 1 S L55 AND L35
L61 7 S L53
L62 30 S L55 AND 1907-2000/PY, PRY
L63 14 S L56 OR L59 OR L60 OR L61

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L64      14 S L62 AND L63
L65      3230 S L7
L66      3230 S L45 OR L65
L67      1 S L65 AND L45
L68      11 S L48 OR L57 OR L67
L69      338407 S LI OR LITHIUM#
L70      2 S L38 AND L69
L71      12 S L68 OR L70
L72      1 S L71 AND L64
L73      13 S L64 NOT L71

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L74      FILE 'LCA' ENTERED AT 10:33:00 ON 06 OCT 2003
          2166 S CATHOD? OR ANOD? OR ELECTROD?

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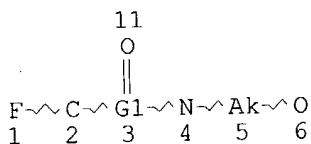
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=> d que stat L31
L5      STR

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GGCAT IS LOC AT 5
DEFAULT ECLEVEL IS LIMITED

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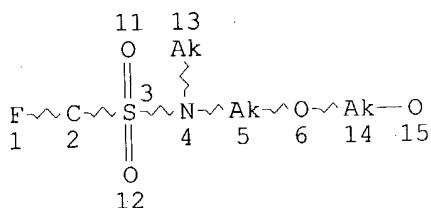
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NUMBER OF NODES IS 7

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STEREO ATTRIBUTES: NONE
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L22     SCR 2043
L28     STR

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← claim 10

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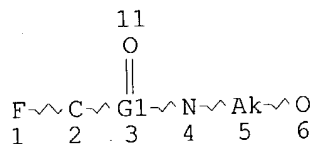
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STEREO ATTRIBUTES: NONE
L31 91 SEA FILE=REGISTRY SUB=L7 SSS FUL L28 NOT L22

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91 ANSWERS

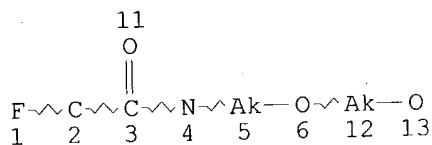
=> d que stat L52
L5 STR



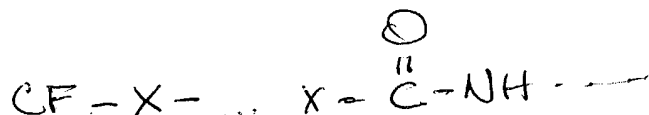
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DEFAULT MLEVEL IS ATOM
GGCAT IS LOC AT 5
DEFAULT ECLEVEL IS LIMITED

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RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 7

STEREO ATTRIBUTES: NONE
L7 5250 SEA FILE=REGISTRY SSS FUL L5
L22 SCR 2043
L50 STR



< claim II



NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
GGCAT IS LOC AT 5
DEFAULT ECLEVEL IS LIMITED

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STEREO ATTRIBUTES: NONE
L52 43 SEA FILE=REGISTRY SUB=L7 SSS FUL L50 NOT L22

100.0% PROCESSED 1895 ITERATIONS
SEARCH TIME: 00.00.01

43 ANSWERS

=> file hca

FILE 'HCA' ENTERED AT 10:37:12 ON 06 OCT 2003
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FILE COVERS 1907 - 2 Oct 2003 VOL 139 ISS 15
FILE LAST UPDATED: 2 Oct 2003 (20031002/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> d L71 1-12 cbib abs hitind hitstr

~~Back to file~~ INSTANT APP.

L71 ANSWER 1 OF 12 HCA COPYRIGHT 2003 ACS on STN
136:121064 Nonaqueous electrolyte lithium secondary battery. Iwamoto, Kazuyu; Oura, Takafumi; Hatazaki, Makino; Yoshizawa, Hiroshi; Sonoda, Kumiko; Nakanishi, Shinji (Matsushita Electric Industrial Co., Ltd., Japan). Eur. Pat. Appl. EP 1174940 A1 20020123, 31 pp. DESIGNATED STATES: R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO. (English). CODEN: EPXXDW. APPLICATION: EP 2001-117048 20010712. PRIORITY: JP 2000-215518 20000717; JP 2000-215519 20000717; JP 2000-215520 20000717.

AB The invention relates to a nonaq. electrochem. app. in which the difference (.gamma.l-.gamma.se) between the surface tension .gamma.l of nonaq. electrolyte and the surface free energy .gamma.se of electrode is not more than 10 dynes/cm. The nonaq. electrolyte contains a F-contg. surface active agent.

IC ICM H01M010-40

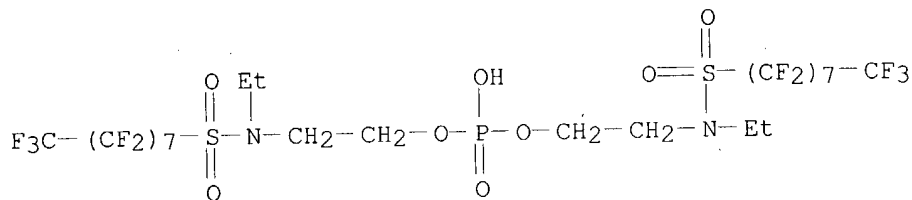
CC 52-2 (Electrochemical, Radiational, and Thermal Energy Technology)
IT 77-79-2, Sulfolene 102-09-0, Diphenyl carbonate 126-33-0, Sulfolane 463-79-6D, Carbonic acid, ester 822-38-8, Ethylene trithiocarbonate 872-36-6, Vinylene carbonate 872-93-5, 3-MethylSulfolane 930-35-8, Vinylene trithiocarbonate 1120-71-4, Propanesultone 1600-44-8 1633-83-6, 1,4-Butanesultone 2171-74-6, 1,3-Benzodioxol-2-one 2965-52-8 3741-38-6, Ethylene sulfite 3967-54-2, Chloroethylene carbonate 4236-15-1 4427-92-3, Phenylethylene carbonate 4427-96-7, Vinyl ethylene carbonate 6255-58-9 7440-44-0, Carbon, uses 7704-34-9D, Sulfur, ester 16761-08-3 21240-34-6 37228-47-0, Ethylene phosphite 40630-61-3 52550-45-5 75032-95-0, Disodium N-perfluorooctanesulfonylglutamate 75046-16-1 122036-85-5 324547-56-0 366787-88-4
RL: MOA (Modifier or additive use); USES (Uses)
(nonaq. electrolyte lithium secondary battery)

IT 2965-52-8 4236-15-1 40630-61-3
52550-45-5

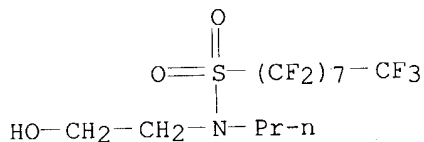
RL: MOA (Modifier or additive use); USES (Uses)

(nonaq. electrolyte lithium secondary battery)

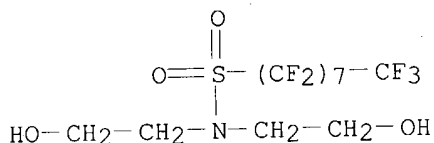
RN 2965-52-8 HCA
 CN 1-Octanesulfonamide, N,N'-[phosphinicobis(oxy-2,1-ethanediyl)]bis[N-ethyl-1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro- (9CI) (CA INDEX NAME)]



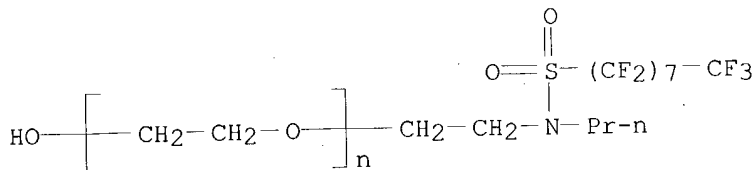
RN 4236-15-1 HCA
 CN 1-Octanesulfonamide, 1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-N-(2-hydroxyethyl)-N-propyl- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



RN 40630-61-3 HCA
 CN 1-Octanesulfonamide, 1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-N,N-bis(2-hydroxyethyl)- (9CI) (CA INDEX NAME)



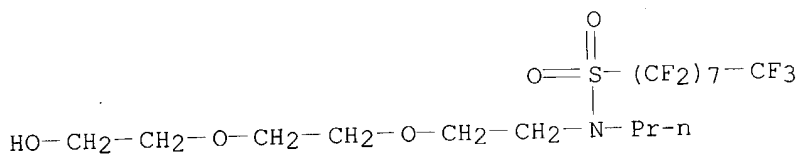
RN 52550-45-5 HCA
 CN Poly(oxy-1,2-ethanediyl), .alpha.-[2-[[heptadecafluorooctyl)sulfonyl]propylamino]ethyl]-.omega.-hydroxy- (9CI) (CA INDEX NAME)



L71 ANSWER 2 OF 12 HCA COPYRIGHT 2003 ACS on STN
 130:253801 Oil-based inks with uniform printing and good fixing property.
 Nasukawa, Makoto; Nishimoto, Tomohisa; Takahashi, Hiroshi (Pentel Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 11061013 A2 19990305
 Heisei, 6 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1997-246118 19970827.

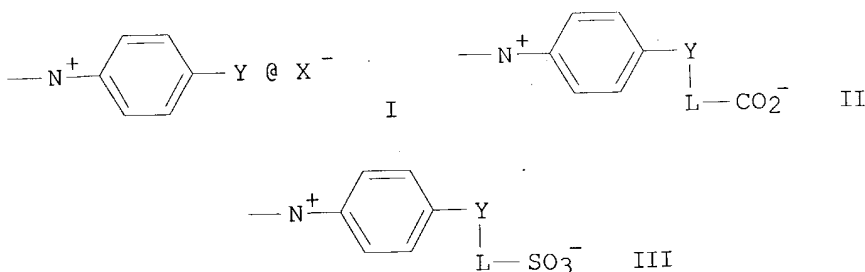
AB The title inks are prepd. from oil-sol. dyes (e.g., NKS 1005, MPI 507.C, MPI 505.C, NKS 1004, Aizen Spilon Red C-CH, Orient Oil Blue 613, Oil Yellow CH), C.l.toreq.4 aliph. alcs. (e.g., ethanol, propanol), resins (e.g., Gum Rosin WW, Tamanol 510, YS Polyester S 145, YP 90L, Haron 110H, Synthetic Resin SK), fluoride **surfactants** (e.g., Fluorad

- FC 431, Eftop EF 122C, Fluorad FC 430), and polyoxyethylene oleylamine and/or polyoxyethylene oleic amide.
- IC ICM C09D011-00
- CC 42-12 (Coatings, Inks, and Related Products)
Section cross-reference(s): 41, 46
- ST oil based ink polyoxyethylene oleylamine phenolic resin; aliphatic polyoxyethylene oleylamine oil based ink; fluoride **surfactant** polyoxyethylene oleylamine oil based ink; dye oil sol fluoride **surfactant** ink
- IT **Surfactants**
(oil-based inks with uniform printing and good fixing property)
- IT Fluoropolymers, uses
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
(**surfactants**; oil-based inks with uniform printing and good fixing property)
- IT 11114-17-3, Fluorad FC-430 12707-52-7, Fluorad FC-431 **146670-61-3**, Eftop EF-122C
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
(**surfactants**; oil-based inks with uniform printing and good fixing property)
- IT **146670-61-3**, Eftop EF-122C
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
(**surfactants**; oil-based inks with uniform printing and good fixing property)
- RN 146670-61-3 HCA
- CN 1-Octanesulfonamide, 1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptafluoro-N-[2-[2-(2-hydroxyethoxy)ethoxy]ethyl]-N-propyl- (9CI) (CA INDEX NAME)

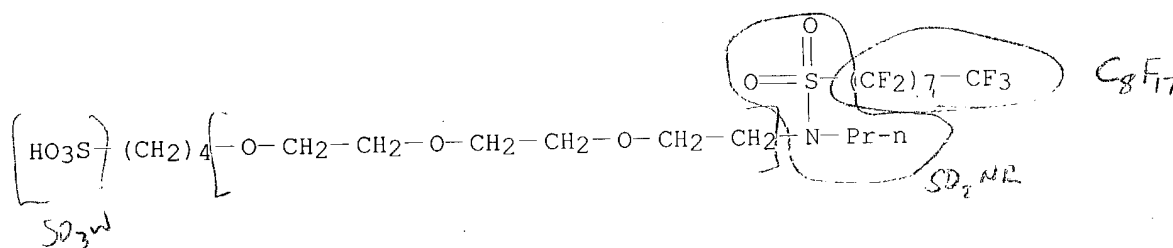


relevant?

- L71 ANSWER 3 OF 12 HCA COPYRIGHT 2003 ACS on STN
123:204346 **Batteries** with improved electrode active mixtures.
Idota, Yoshio; Yoneyama, Shozo (Fuji Photo Film Co Ltd, Japan). Jpn.
Kokai Tokkyo Koho JP 07153467 A2 **19950616** Heisei, 14 pp.
(Japanese). CODEN: JKXXAF. APPLICATION: JP 1993-301818 19931201.
- GI



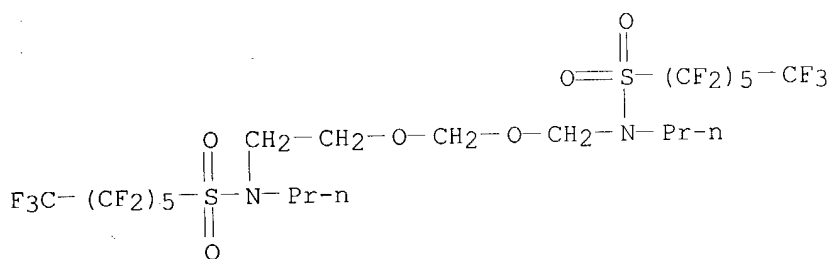
- AB The **batteries** use electrode active mixts. contg. a fluoropolymer binder and 0.02-2% water sol. perfluoro group contg. **surfactant**. The **surfactant** is preferably R_fZ , where R_f is C3-8 perfluoro alkyl or alkenyl group or ω -H perfluoroalkyl group, and Z in (substituted) water sol. groups selected from COOM (M = H, alkali metal, or quaternary ammonium ion), SO₃M, OSO₃M, P(:O)(OM)₂, O(AO)_nR (AO = polyoxyalkylene group, R = h, C1-8 alkyl or aryl group), N+R₁R₂R₃X⁻ (R₁, R₂, R₃ = C1-4 alkyl or hydroxyalkyl group, X = halide or other anion), I (Y = residue of N contg. 5 or 6 membered ring), N+(R₁)R₂LCOO⁻ (L = bivalent joining group, e.g., C1-6 alkenyl group, CH₂CH₂O(CH₂CH₂O)_aCH₂CH₂ group), II, N+(R₁)R₂LSO⁻, III, or O[CH₂CH(OH)O]_nR. The electrodes are preferably **Li** intercalating electrodes.
- IC ICM H01M004-62
ICS H01M004-02; H01M004-06
- CC **52-2** (Electrochemical, Radiational, and Thermal Energy Technology)
- ST **lithium battery** electrode perfluoro **surfactant**
- IT **Surfactants**
(perfluoro **surfactants** in electrode active mixts. for **batteries**)
- IT Electrodes
(**battery**, perfluoro **surfactants** in electrode active mixts. for **batteries**)
- IT 13596-51-5, Cobalt **lithium** vanadium oxide (CoLiVO₄)
21651-19-4, Tin oxide (SnO)
RL: DEV (Device component use); USES (Uses)
(anode active mixts. contg. fluoropolymer binders and perfluoro **surfactants** for **batteries**)
- IT 12190-79-3, **Lithium** cobalt oxide (LiCoO₂)
RL: DEV (Device component use); USES (Uses)
(cathode active mixts. contg. fluoropolymer binders and perfluoro **surfactants** for **batteries**)
- IT 7782-42-5, Graphite, uses
RL: DEV (Device component use); USES (Uses)
(electrode active mixts. contg. fluoropolymer binders and perfluoro **surfactants** for **batteries**)
- IT 9002-84-0, Ptfе 24937-79-9, Poly(vinylidene fluoride)
RL: MOA (Modifier or additive use); USES (Uses)
(electrode active mixts. contg. fluoropolymer binders and perfluoro **surfactants** for **batteries**)
- IT 29457-72-5 **145882-56-0**
RL: MOA (Modifier or additive use); USES (Uses)
(perfluoro **surfactants** in electrode active mixts. for **batteries**)
- IT **145882-56-0**
RL: MOA (Modifier or additive use); USES (Uses)
(perfluoro **surfactants** in electrode active mixts. for **batteries**)
- RN 145882-56-0 HCA
- CN 5,8,11-Trioxa-15-thia-14-azatricosane-1-sulfonic acid,
16,16,17,17,18,18,19,19,20,20,21,21,22,22,23,23,23-heptadecafluoro-14-propyl-, 15,15-dioxide, sodium salt (9CI) (CA INDEX NAME)



● Na

L71 ANSWER 40 OF 12 HCA COPYRIGHT 2003 ACS on STN
122:58904 Sulfuric acid compositions for antifoaming **detergents**.
Tanaka, Hiroyuki; Sako, Naoki; Oomura, Takahiro (Mitsubishi Chem Ind,
Japan). Jpn. Kokai Tokkyo Koho JP 06200296 A2 19940719 Heisei,
6 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1993-807 19930106.
AB The compns., useful in integrated circuit manuf., are obtained by adding
silicone oils and/or F-modified silicone oils and
R1ANR2(CH2O)m(CH2)nNR3AR4 (I; R1, R4 = C.gto req.3 fluoroalkyl; R2, R3 = H,
C1-4 alkyl; A = SO2, CO; m = 0-12; n = 1-10) in surfactant-contg. H2SO4 or
H2SO4-H2O2 mixt. with surface tension .ltoreq.40 dyne/cm. Thus, a 89%
H2SO4 was blended with 0.01% C8F17SO2NH(CH2)3N+Me2(CH2)2CO2- and further
blended with 20 vol.% a 31% H2O2 to give a compn. (surface tension 27.2
dyne/cm), which was blended with 0.002% SH 200 and 0.02% I (R1, R4 =
C6F13; R2 = H; R3 = Me; A = SO2; m = 0; n = 3) to give a product showing
surface tension 27.3 dyne/cm and good antifoaming property at 130.degree..
IC ICM C11D007-60
ICS B01F017-16; B01F017-26; B01F017-28; B01F017-42; C01B017-69;
C23F001-16; C23G001-02; H01L021-304
ICI C11D007-60, C11D007-08, C11D007-32
CC 46-6 (Surface Active Agents and Detergents)
ST antifoaming sulfuric acid **detergent** fluoroalkylsulfonamide;
silicone sulfuric acid **detergent** antifoaming; integrated circuit
detergent sulfuric acid
IT Antifoaming agents
(fluoroalkylsulfonamides and silicone oils for antifoaming sulfuric
acid-based **detergents** in integrated circuit manuf.)
IT Siloxanes and Silicones, uses
RL: MOA (Modifier or additive use); USES (Uses)
(Me 3,3,3-trifluoropropyl, FS 1265; fluoroalkylsulfonamides and
silicone oils for antifoaming sulfuric acid-based **detergents**
in integrated circuit manuf.)
IT **Detergents**
(**cleaning** compns., fluoroalkylsulfonamides and silicone oils
for antifoaming sulfuric acid-based **detergents** in integrated
circuit manuf.)
IT Siloxanes and Silicones, uses
RL: MOA (Modifier or additive use); USES (Uses)
(di-Me, SH 200; fluoroalkylsulfonamides and silicone oils for
antifoaming sulfuric acid-based **detergents** in integrated
circuit manuf.)
IT Electric circuits
(integrated, fluoroalkylsulfonamides and silicone oils for antifoaming
sulfuric acid-based **detergents** in integrated circuit manuf.)
IT 50605-75-9 160087-48-9 160087-49-0 160087-50-3 160087-51-4
RL: MOA (Modifier or additive use); USES (Uses)
(fluoroalkylsulfonamides and silicone oils for antifoaming sulfuric
acid-based **detergents** in integrated circuit manuf.)

- IT 7664-93-9, Sulfuric acid, uses
 RL: PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
 (fluoroalkylsulfonamides and silicone oils for antifoaming sulfuric acid-based **detergents** in integrated circuit manuf.)
- IT 42557-10-8
 RL: MOA (Modifier or additive use); USES (Uses)
 (fluoroalkylsulfonamides and silicone oils for antifouling sulfuric acid-based **detergents** in integrated circuit manuf.)
- IT 7722-84-1, Hydrogen peroxide, uses
 RL: PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
 (mixt. with sulfuric acid; fluoroalkylsulfonamides and silicone oils for antifoaming sulfuric acid-based **detergents** in integrated circuit manuf.)
- IT 2262-49-9 73469-65-5 153968-01-5 160087-47-8
 RL: MOA (Modifier or additive use); USES (Uses)
 (surfactants; fluoroalkylsulfonamides and silicone oils for antifoaming sulfuric acid-based **detergents** in integrated circuit manuf.)
- IT **160087-50-3**
 RL: MOA (Modifier or additive use); USES (Uses)
 (fluoroalkylsulfonamides and silicone oils for antifoaming sulfuric acid-based **detergents** in integrated circuit manuf.)
- RN 160087-50-3 HCA
 CN 1-Hexanesulfonamide, 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-N-propyl-N-(9,9,10,10,11,11,12,12,13,13,14,14,14-tridecafluoro-8,8-dioxido-7-propyl-2,4-dioxa-8-thia-7-azatetradec-1-yl)- (9CI) (CA INDEX NAME)



- L71 ANSWER 5 OF 12 HCA COPYRIGHT 2003 ACS on STN
 121:282712 Aqueous **detergents** for degreasing used before vacuum soldering. Kobayashi, Hiroshi (Asahi Chemical Ind, Japan). Jpn. Kokai Tokkyo Koho JP 06136579 A2 19940517 Heisei, 4 pp. (Japanese).
 CODEN: JKXXAF. APPLICATION: JP 1992-291132 19921029.
- AB The title **detergents** contain 0.001-10% F-contg. surfactants [RfSO₂N(R)(C_nH_{2n}O)_m]2PO₂NH₄ (I, Rf = C₆-10 perfluoroalkyl; R = C₁-4 alkyl; n = 2-3; m = 1-4). A **detergent** used for Al contained I (Rf = perfluorooctyl; R = Et; n = m = 2) 0.01, polyethylene glycol octylphenyl ether 10, monoethanolamine 4, and nonanoic acid 4%.
- IC ICM C23G001-26
 ICS B23K001-20; C11D001-34
- CC 46-6 (Surface Active Agents and Detergents)
 Section cross-reference(s): 56
- IT **Detergents**
 (degreasing compns., aq. **detergents** for degreasing used before vacuum soldering)
- IT 7429-90-5, Aluminum, processes
 RL: PEP (Physical, engineering or chemical process); PROC (Process)
 (aq. **detergents** for degreasing used before vacuum soldering)

IT 159012-21-2 159012-22-3

RL: TEM (Technical or engineered material use); USES (Uses)
(aq. **detergents** for degreasing used before vacuum soldering)

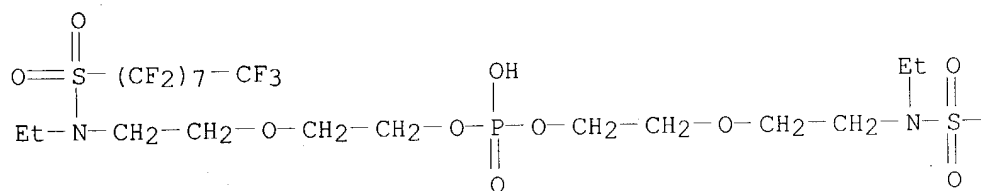
IT 159012-21-2 159012-22-3

RL: TEM (Technical or engineered material use); USES (Uses)
(aq. **detergents** for degreasing used before vacuum soldering)

RN 159012-21-2 HCA

CN 1-Octanesulfonamide, N,N'-(7-hydroxy-3,6,8,11-tetraoxa-7-oxido-7-phosphatridecane-1,13-diyl)bis[N-ethyl-1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptafluoro-, ammonium salt (9CI) (CA INDEX NAME)

PAGE 1-A

● NH₃

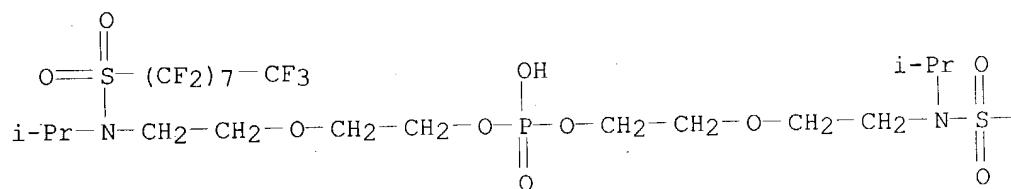
PAGE 1-B

— (CF₂)₇—CF₃

RN 159012-22-3 HCA

CN 1-Octanesulfonamide, N,N'-(7-hydroxy-3,6,8,11-tetraoxa-7-oxido-7-phosphatridecane-1,13-diyl)bis[1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptafluoro-N-(1-methylethyl)-, ammonium salt (9CI) (CA INDEX NAME)

PAGE 1-A

● NH₃

PAGE 1-B

— (CF₂)₇—CF₃

L71 ANSWER 6 OF 12 HCA COPYRIGHT 2003 ACS on STN
 116:175894 Vulcanization of fluoroelastomers by polyhydroxy compounds and salt-forming heterocyclic amines. Weigelt, Jeffrey D. (Minnesota Mining and Mfg. Co., USA). Eur. Pat. Appl. EP 466340 A2 19920115, 16 pp. DESIGNATED STATES: R: DE, FR, GB, IT. (English). CODEN: EPXXDW. APPLICATION: EP 1991-305443 19910617. PRIORITY: US 1990-553161 19900713.

AB Fluoroelastomers are compounded with a vulcanizing agent comprising a polyhydroxy compd., a salt of a polyhydroxy compd., and a salt-forming heterocyclic amine compd. having 2 N atoms, at least one of which is a ring atom, and optionally a vulcanization accelerator, and then shaped by extrusion and heated to give a cured elastomeric article useful for automotive components. Thus, hexafluoropropene-tetrafluoroethylene-vinylidene fluoride copolymer rubber was compounded with carbon black, Ca(OH)₂, MgO, 3.46 mmhr free bisphenol AF, and 1.3 mmhr bisphenol AF.cntdot.1,8-diazabicyclo[5.4.0]-7-undecene, press-vulcanized at 177.degree. and post-vulcanized at 232.degree. to give vulcanizates showing tensile strength 15.39, 100% modulus 9.10 MPa, and compression set (70 h, 200.degree.) 29.6%.

IC ICM C08K005-34
 ICS C08L027-12

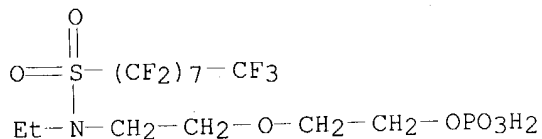
CC 39-10 (Synthetic Elastomers and Natural Rubber)

IT 2991-50-6 24448-09-7 75457-12-4 87988-59-8 **140194-59-8**
 RL: USES (Uses)
 (processing aids, for fluoroelastomers)

IT **140194-59-8**
 RL: USES (Uses)
 (processing aids, for fluoroelastomers)

RN 140194-59-8 HCA

CN 1-Octanesulfonamide, N-ethyl-1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptafluoro-N-[2-[2-(phosphonooxy)ethoxy]ethyl]-, disodium salt (9CI)
 (CA INDEX NAME)



● 2 Na

L71 ANSWER 7 OF 12 HCA COPYRIGHT 2003 ACS on STN
 112:218984 Releases for molding plastics and rubber. Amimoto, Yoshio; Shinjo, Masayoshi; Takubo, Seiji; Nakamae, Yasushi (Daikin Industries, Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 01285312 A2 19891116 Heisei, 11 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1988-115712 19880511.

AB The title agents comprise highly fluorinated org. compd. and .gtoreq.1 of fluoroalkyl or fluoroalkenyl group-contg. phosphoric acid esters, phosphoric acid derivs., phosphoric acid derivs. and their salts. A soln. from [CF₃(CF₂)₇SO₂NEtCH₂(H₂O)]₂P(O)(OH)ONH₄ 0.6, F[CF(CF₃)CF₃O]₃CHFCF₃ (I) 0.9, iso-PrOH 10, and C₂F₃Cl₃ 88.5% was spray-coated on an Al mold, heat-dried, and a semi-rigid polyurethane foam was molded with release strength 42 g/cm², compared with 82 for a control not using I.

IC ICM B29C033-60
ICS B29C033-62; C08K005-53; C08L027-12; C08L071-02

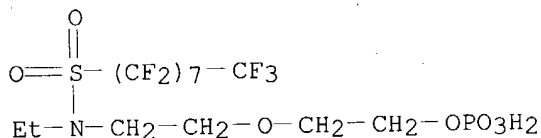
CC 42-13 (Coatings, Inks, and Related Products)
Section cross-reference(s): 38

IT 7664-38-2D, Phosphoric acid, fluoroalkyl esters 55465-60-6 105060-59-1
118234-46-1 **126947-34-0** 126947-35-1
RL: USES (Uses)
(release coatings contg., for molding of plastics and rubbers)

IT **126947-34-0**
RL: USES (Uses)
(release coatings contg., for molding of plastics and rubbers)

RN 126947-34-0 HCA

CN 1-Octanesulfonamide, N-ethyl-1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptafluoro-N-[2-[2-(phosphonooxy)ethoxy]ethyl]-, monoammonium salt (9CI) (CA INDEX NAME)



● NH₃

L71 ANSWER 8 OF 12 HCA COPYRIGHT 2003 ACS on STN
112:142570 Steam mediated fluorochemically enhanced oil recovery. Karydas, Athanasios (Ciba-Geigy Corp., USA). U.S. US 4823873 A **19890425**, 14 pp. (English). CODEN: USXXAM. APPLICATION: US 1987-129518 19871207.

AB A steam mediated oil recovery process comprises contacting an oil deposit with a fluoro compd. of general formula [(Rf)_n(Rl)_p]_mZ, where each Rf is independently a perfluoroaliph. or .omega.-hydroperfluoroaliph. group each of which is optionally interrupted by carbonyl, carboxy, carbonylamino, O, S, sulfinyl, or sulfonyl; n = 1-3 and P = 0 or 1 provided that when p = 0, n = 1; m = 1-5000; each Rl is independently an org. linking group between Rf and Z having a valency of n + 1; and Z is a hydrocarbyl-contg. residue of valency m. An example of the compd. is C₆F₁₃CH₂CH₂SCH₂CH(CH₂OH)O(CH₂CH₂O)₆[CH(Me)CH₂O]₅₆(CH₂CH₂O)₆H.

IC ICM E21B043-22
ICS E21B043-24

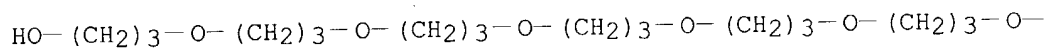
NCL 166272000

CC 51-2 (Fossil Fuels, Derivatives, and Related Products)

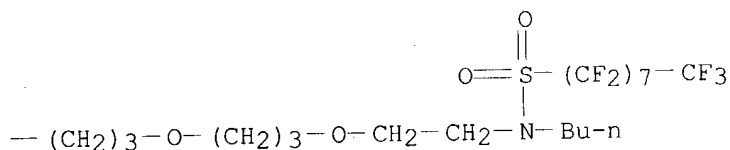
IT 473-24-5 559-05-7 11114-17-3, Fluorad **FC 430** 42269-10-3
53269-61-7 58285-35-1 70939-81-0D, polymers with perfluoroalkyl diol and trimethylhexanediisocyanate 86889-48-7 97745-66-9 99896-61-4 99955-83-6 **100221-80-5** 122465-45-6 122465-46-7 122477-60-5 122477-61-6 122477-62-7 122496-83-7 122496-84-8 122496-85-9D, 3,3,4-Trimethylhexane-1,6-diisocyanate, polymers with perfluoroalkyldiol

and PEG bisaminopropyl ether 122525-45-5 122525-46-6
 RL: USES (Uses)
 (additive, for steam-mediated petroleum recovery)
 IT **100221-80-5**
 RL: USES (Uses)
 (additive, for steam-mediated petroleum recovery)
 RN 100221-80-5 HCA
 CN 1-Octanesulfonamide, N-butyl-1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-N-(34-hydroxy-3,7,11,15,19,23,27,31-octaoxatetracont-1-yl)- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



L71 ANSWER 9 OF 12 HCA COPYRIGHT 2003 ACS on STN
 111:135623 Antifogging PVC films for greenhouses. Nakamura, Yoshinobu; Fujikura, Isao; Goto, Tadao; Miura, Junichi; Sugii, Ichiro (Toho Chemical Industry Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 01006046 A2 19890110 Heisei, 7 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1987-161207 19870630.
 AB The films contain 0.5-5% reaction products prep'd. by reacting $\text{RfZ}(\text{RO})\text{mH}$ or $\text{RfZ1NR1}(\text{RO})\text{nH}$ [Rf = C4-10 fluoroalkyl; R = $(\text{CH}_2)_2$, $(\text{CH}_2)_3$; R1 = H, C1-5 alkyl; Z = $\text{C}_2\text{H}_4\text{O}$, $\text{CH}_2\text{CH}(\text{OH})\text{CH}_2\text{O}$, $\text{C}_2\text{H}_4\text{OCH}_2\text{CH}(\text{OH})\text{CH}_2\text{O}$; Z1 = CO, SO_2 ; m = 0-25; n = 1-25) with $\text{R}_2\text{CH}_2\text{O}(\text{RO})\text{lCH}_2\text{R}_2$ (I ; R_2 = glycidyl; l = 1-25), followed by reacting with polyhydric alc. fatty acid esters. A 100-.mu.m film prep'd. from PVC (d.p. 1100) 100, DOP 45, epoxidized soybean oil 2, tricresyl phosphate 5, Ba-Zn soap 1, methylenebis(stearylamide) 0.5, and reaction product of 1:1:1.2 mol $\text{C}_8\text{F}_{17}\text{C}_2\text{H}_4\text{OH}-\text{I}$ (R = C_2H_4 , l = 12)-sorbitan palmitate 2 parts showed good antifogging over 4 mo.
 IC ICM C08L027-06
 ICS C08J005-18; C08K005-10
 ICA A01G009-14
 CC 38-3 (Plastics Fabrication and Uses)
 Section cross-reference(s): 5
 IT 678-39-7D, reaction products with polyoxyalkylene glycidyl ethers and polyhydric alc. fatty acid esters 9081-99-6D, reaction products with hydroxy-terminated fluoro compds. and polyhydric alc. fatty acid esters 26266-57-9D, Sorbitan palmitate, reaction products with hydroxy-terminated fluoro compds. and polyoxyalkylene glycidyl ethers 26403-72-5D, reaction products with hydroxy-terminated fluoro compds. and polyhydric alc. fatty acid esters 39385-67-6D, Pentaerythritol laurate, reaction products with hydroxy-terminated fluoro compds. and polyoxyalkylene glycidyl ethers

67383-25-9D, reaction products with polyoxyalkylene glycidyl ethers and polyhydric alc. fatty acid esters 112143-71-2D, reaction products with hydroxy-terminated fluoro compds. and polyoxyalkylene glycidyl ethers 121783-88-8D, reaction products with polyoxyalkylene glycidyl ethers and polyhydric alc. fatty acid esters 121783-97-9D, reaction products with polyoxyalkylene glycidyl ethers and polyhydric alc. fatty acid esters 121854-30-6D, reaction products with polyoxyalkylene glycidyl ethers and polyhydric alc. fatty acid esters **122818-13-7D**, reaction products with polyoxyalkylene glycidyl ethers and polyhydric alc. fatty acid esters

RL: USES (Uses)

(antifogging agents, PVC films contg., for greenhouses)

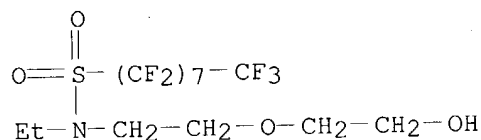
IT **122818-13-7D**, reaction products with polyoxyalkylene glycidyl ethers and polyhydric alc. fatty acid esters

RL: USES (Uses)

(antifogging agents, PVC films contg., for greenhouses)

RN 122818-13-7 HCA

CN 1-Octanesulfonamide, N-ethyl-1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-N-[2-(2-hydroxyethoxy)ethyl]- (9CI) (CA INDEX NAME)



L71 ANSWER **(10)** OF 12 HCA COPYRIGHT 2003 ACS on STN

104:38495 Activation solution for electroless coating. Takahashi, Tsutomu; Toda, Kazuo; Adachi, Kazuyoshi (Mitsubishi Metal Corp., Japan). Jpn. Kokai Tokkyo Koho JP 60141876 A2 **19850726** Showa, 7 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1983-245407 19831228.

AB The activation soln. contains a Pd salt; a **surfactant** having perfluoroalkyl groups; and optionally pyrogallol and/or hydroquinone. Activation is done in solns. contg. 10-5-10-2M Pd ion and having pH related to Pd ion concn. The **surfactants** are optionally RSO₃R₁ (R = C₄-15 perfluoroalkyl; R₁ = K, Na, Li); RSO₂NR₂CH₂CO₂R₁ (R₂ = H, C₁-5 alkyl), RSO₂NR₂(C₂H₄O)_nH (n = 1-20); [RSO₂NR₂(C₂H₄O)_n]2P(O)OR₃ (R₃ = H, NH₄); or RSO₂NHC₂H₄NMe₃I. The process gives activated surfaces on chem. unstable substances and smooth-surfaced substances, resulting in homogeneous and dense electroless coating. Thus, powd. SiC (5.μm.) 1 g was activated at 40.degree. in soln. contg. 10-4M PdCl₂ and 0.4 g C₈F₁₇SO₃Li/L for 30 min at pH 3.6, and then was coated with Ni in Sumer SB-55 electroless bath to give 0.530 g Ni showing a high surface smoothness.

IC ICM C23C018-30

CC 56-6 (Nonferrous Metals and Alloys)

ST electroless coating activation soln; palladium perfluorosurfactant activation; **surfactant** perfluoro palladium activation; nickel electroless activation soln; silicon carbide electroless coating nickel

IT 7647-10-1 10025-98-6 29457-72-5 64264-43-3 **99697-23-1**

RL: USES (Uses)

(activation soln. contg., for electroless coating)

IT **99697-23-1**

RL: USES (Uses)

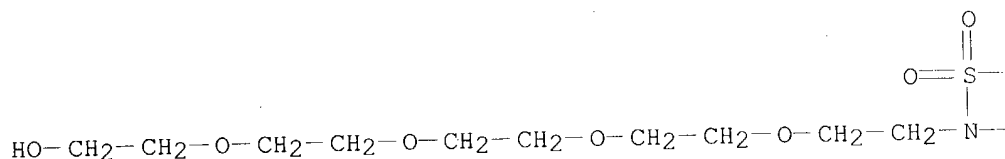
(activation soln. contg., for electroless coating)

RN 99697-23-1 HCA

CN 1-Octanesulfonamide, 1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-N-(14-hydroxy-3,6,9,12-tetraoxatetradec-1-yl)-N-propyl- (9CI) (CA INDEX

NAME)

PAGE 1-A



PAGE 1-B

— (CF₂)₇—CF₃

—Pr—n

L71 ANSWER 11 OF 12 HCA COPYRIGHT 2003 ACS on STN
 91:81570 Electrophotographic photosensitive plates. Kondo, Hideyo; Murai,
 Keiichi (Canon K. K., Japan). Jpn. Kokai Tokkyo Koho JP 53146631
19781220 Showa, 4 pp. (Japanese). CODEN: JKXXAF. APPLICATION:
 JP 1977-61464 19770526.

AB In prepg. electrophotog. plates having an insulator layer on the
 photoconductor layer, a F-contg. surfactant is added to the insulator
 layer to improve its durability and **cleanability**. Thus, Se was
 vacuum-deposited (60-.mu. thick) on an Al drum, the drum was coated (30
 .mu. dry) with a soln. contg. Zonne (photohardenable type polyurethane
 resin from Kansai Paint) 90 and C8F17SO2NMeCH2CO2K 10 parts to give an
 electrophotog. plate, which withstood .gtoreq.10,000 cyclic uses.

IC G03G005-02

CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic Processes)

IT 40630-61-3 70281-93-5 **70281-94-6**

RL: USES (Uses)

(electrophotog. plate insulator layer contg. binder resin and)

IT **70281-94-6**

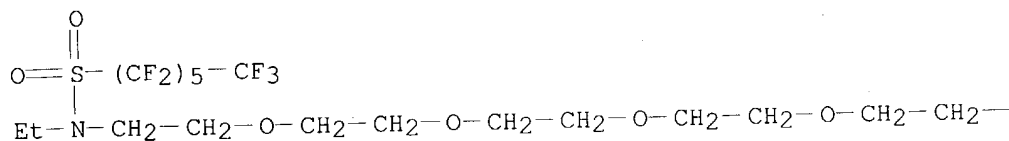
RL: USES (Uses)

(electrophotog. plate insulator layer contg. binder resin and)

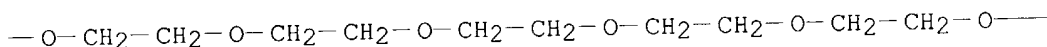
RN 70281-94-6 HCA

CN 1-Hexanesulfonamide, N-ethyl-1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-N-(32-
 hydroxy-3,6,9,12,15,18,21,24,27,30-decaoxadotriacont-1-yl)- (9CI) (CA
 INDEX NAME)

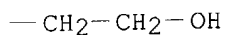
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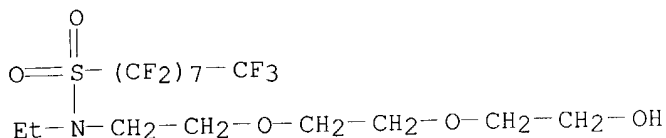
PAGE 1-B



PAGE 1-C

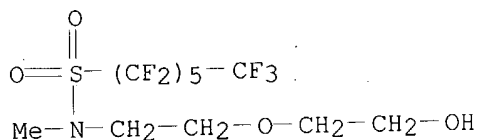


- L71 ANSWER (12) OF 12 HCA COPYRIGHT 2003 ACS on STN
 80:97215 Water-in-fluorocarbon emulsions in textile dyeing. Guenther,
 Richard A. (Minnesota Mining and Manufg. Co.). Ger. Offen. DE 2324301
19731206, 20 pp. (German). CODEN: GWXXBX. APPLICATION: DE
 1973-2324301 19730514.
- AB Stable water-in-fluorocarbon emulsions contained 15-50% H₂O in
 fluorocarbons, e.g. **FC-82** (I) [51310-70-4] (C₈F₁₆-C₈F₁₈ mixt.),
 and N-ethyl-N-[2-[2-(2-hydroxyethoxy)ethoxy]perfluorooctanesulfonam
 ide (II) [51274-56-7] **emulsifier** and were used in carrier dyeing
 of textiles. Thus, a mixt. contg. 400 ml I, 0.8 g II, 8 ml water, and
 0.124 g yellow disperse dye C.I. 26,075 was stirred 2 min to give a stable
 emulsion. Acetate silk velvet was dyed in this emulsion with complete
 exhaustion of the bath within 5 min.
- IC B01F; D06P
 CC 39-7 (Textiles)
 ST water fluorocarbon emulsion dyeing; fluorooctanesulfonamide
emulsifier; sulfonamide **emulsifier**
 IT **52287-95-3 52287-96-4 52287-97-5**
 RL: USES (Uses)
 (**emulsifiers**, for fluorocarbon-water emulsions for carrier
 dyeing of synthetic fibers)
- IT **52287-95-3 52287-96-4 52287-97-5**
 RL: USES (Uses)
 (**emulsifiers**, for fluorocarbon-water emulsions for carrier
 dyeing of synthetic fibers)
- RN 52287-95-3 HCA
 CN 1-Octanesulfonamide, N-ethyl-1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-
 heptafluoro-N-[2-[2-(2-hydroxyethoxy)ethoxy]ethyl]- (9CI) (CA INDEX
 NAME)



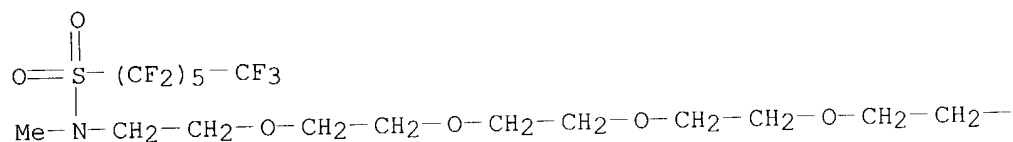
- RN 52287-96-4 HCA
 CN 1-Hexanesulfonamide, 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-N-[2-(2-

hydroxyethoxy)ethyl]-N-methyl- (9CI) (CA INDEX NAME)

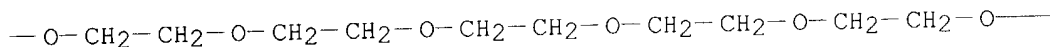


RN	52287-97-5	HCA
CN	1-Hexanesulfonamide, 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-N-(32-hydroxy-3,6,9,12,15,18,21,24,27,30-decaoxadotriacont-1-yl)-N-methyl- (9CI) (CA INDEX NAME)	

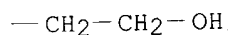
PAGE 1-A



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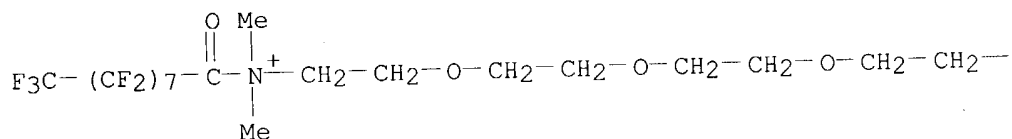
L73 ANSWER 1 OF 13 HCA COPYRIGHT 2003 ACS on STN
132:227794 Colloid-chemical properties of a series of amino and fluoro
compounds. Rusanov, A. I.; Bazanov, A. G.; Kochurova, N. N.; Maksimov, B.
N.; Ryabinin, N. A.; Boldyrev, A. V.; Mizina, N. A.; Lobacheva, O. L.;
Abduln, N. G.; Trubinskaya, T. A.; Shepurev, S. E. (St. Petersburg. Gos.
Univ., Russia). Zhurnal Prikladnoi Khimii (Sankt-Peterburg), 72(12),
1959-1964 (Russian) 1999. CODEN: ZPKHAB. ISSN: 0044-4618.
Publisher: Nauka.

AB Publisher: Nauka.
Colloid formation was investigated for a series of seventeen amino and fluoro org. compds. The surface and interfacial tension of the compds. were detd. together with their foam and emulsion formation as well as deemulsification properties. An oxyethylated aliph. amine deriv. with a

greater no. of carbon atoms and no fluorine was found to be a better
foaming agent than N,N-dimethyl-N-ethyloxy-N-
 (pentadecafluoro-3,7-dioxanonylsulfonamidotrimethylene)ammonium chloride.

CC 66-2 (Surface Chemistry and Colloids)
 ST **surfactant** amine fluoro org compd
 IT Emulsification
 Emulsifying agents
Foaming agents
 Interfacial tension
 Surface tension
Surfactants
 (colloidal properties of a series of amino and fluoro org. compds.)
 IT 60030-35-5 77958-18-0 83579-63-9 89375-44-0 130114-31-7
261621-18-5 261621-19-6
 RL: PRP (Properties)
 (colloidal properties of a series of amino and fluoro org. compds.)
 IT **261621-18-5**
 RL: PRP (Properties)
 (colloidal properties of a series of amino and fluoro org. compds.)
 RN 261621-18-5 HCA
 CN 3,6,9,12-Tetraoxatetradecan-1-aminium, N-(2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,
 9-heptafluoro-1-oxononyl)-14-hydroxy-N,N-dimethyl-, chloride (9CI)
 (CA INDEX NAME)

PAGE 1-A

● Cl⁻

PAGE 1-B

—O—CH₂—CH₂—OH

L73 ANSWER (2) OF 13 HCA COPYRIGHT 2003 ACS on STN
 114:187994 Monodisperse perfluoro-polyethoxylated amphiphilic compounds with
 two-chain polar head - preparation and properties. Selve, C.; Ravey, J.
 C.; Stebe, M. J.; El Moudjahid, C.; Moumni, E. M.; Delpuech, J. I. (Lab.
 Etud. Solutions Org. Colloïdales, Univ. Nancy I, Vandoeuvre-les-Nancy,
 54506, Fr.). Tetrahedron, 47(3), 411-28 (English) 1991. CODEN:
 TETRAB. ISSN: 0040-4020. OTHER SOURCES: CASREACT 114:187994.
 AB Monodisperse **surfactants** with a 2-chain polyoxyethylene
 hydrophilic head and a perfluoroalkyl hydrophobic moiety linked together
 through an amide bond were prepd. by methods allowing large-scale prodn.
 Surface tension measurements (.apprx.20 mN.m⁻¹) showed slow organization
 of the **surfactant** film at the water/air interface for longer
 fluorocarbon tail. Values of crit. micellar concns. and comparisons with

monosubstituted amide **surfactants** were consistent with a high hydrophilicity of the amide function, a small influence of branching over hydrophilicity, and a hydrophobicity of each CF₂ unit equiv. to 1.7 methylenes.

CC 46-3 (Surface Active Agents and Detergents)

ST monodisperse perfluoro ethoxylated **surfactant**; surface tension perfluoro ethoxylated **surfactant**; micelle concn perfluoro ethoxylated **surfactant**

IT **Surfactants**

(monodisperse perfluoro-ethoxylated amphiphilic compds., with two-chain polar head, prepn. and properties of)

IT 111364-03-5P 111364-04-6P 111364-05-7P 111364-06-8P 111364-07-9P
111364-08-0P 111364-09-1P 111364-10-4P 111387-11-2P 123852-05-1P
133531-79-0P 133531-80-3P 133531-81-4P 133531-82-5P 133531-83-6P

133531-84-7P 133531-85-8P

RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(**surfactants**, prepn. and characterization of)

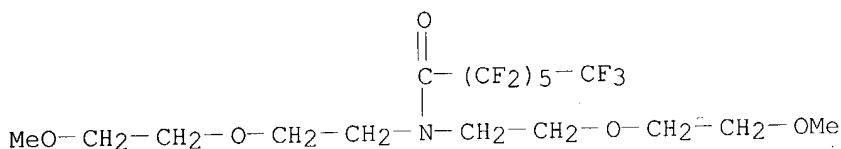
IT **133531-84-7P 133531-85-8P**

RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(**surfactants**, prepn. and characterization of)

RN 133531-84-7 HCA

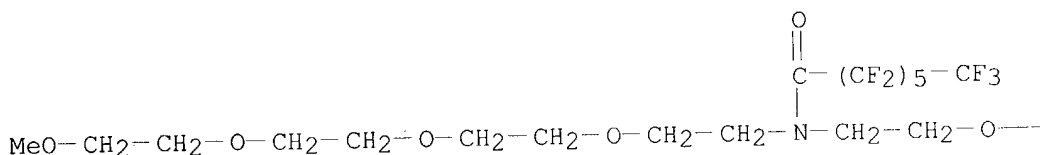
CN Heptanamide, 2,2,3,3,4,4,5,5,6,6,7,7,7-tridecafluoro-N,N-bis[2-(2-methoxyethoxy)ethyl]- (9CI) (CA INDEX NAME)



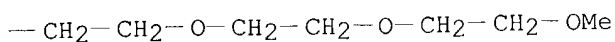
RN 133531-85-8 HCA

CN Heptanamide, 2,2,3,3,4,4,5,5,6,6,7,7,7-tridecafluoro-N,N-bis(3,6,9,12-tetraoxatridec-1-yl)- (9CI) (CA INDEX NAME)

PAGE 1-A

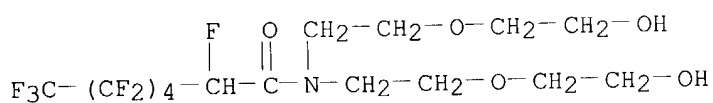


PAGE 1-B



L73 ANSWER 3 OF 13 HCA COPYRIGHT 2003 ACS on STN
112:38720 Preparation of N-(fluoroalkanoyl)- and N-

- (fluoroalkylsulfonyl)iminobispolyoxyalkylenes for use as **surfactants**. Gross, Udo; Holzbauer, Hans Reiner (Akademie der Wissenschaften der DDR, Ger. Dem. Rep.). Ger. (East) DD 265398 A1 **19890301**, 12 pp. (German). CODEN: GEXXA8. APPLICATION: DD 1987-300371 19870302.
- AB Compds. $F_3C(CF_2)_nCFRQ_N(CH_2CHR_{10})_yH(CH_2CHR_{10})_xH$ ($Q = CO, SO_2$; $R = H, F, CF_3CO, C_2F_5CO$; $R_1 = H, \text{alkyl}$; $n = 0-14$; $x + y = 2-80$), useful as **surfactants** in aq. systems and **emulsifiers** for oil-in-water emulsions, are prepd. by the reaction of N,N-bis(2-hydroxyethyl) derivs. of fluoroalkanamides or fluoroalkananesulfonamides with epoxides, halohydrins, etc., in the presence of basic catalysts at 40-120.degree.. Thus, heating $F_3C(CF_2)_7CHFCF_2SO_2N[(CH_2CH_2O)_nH]_2$ (I) ($n = 1$) contg. 4% $PhCH_2NMe_3OH$ to 110.degree. and adding ethylen oxide during 30 h gave I ($n = 10$).
- IC ICM C07C103-08
ICS C07C143-74
- CC 46-3 (Surface Active Agents and Detergents)
Section cross-reference(s): 23, 35
- ST fluoroalkanamide hydroxyethyl ethoxylation **surfactant**;
fluoroalkanesulfonamide hydroxyethyl ethoxylation **surfactant**;
amide fluoro hydroxyethyl ethoxylation **surfactant**; sulfonamide
fluoro hydroxyethyl ethoxylation **surfactant**; ethoxylation
diethanolamide **surfactant**; ammonium catalyst ethoxylation
diethylamide
- IT Ethoxylation
(of diethanolamids of fluorinated carboxylic and sulfonic acids, as **surfactants**)
- IT **Surfactants**
(anionic, fluoro, prepn. of, ethoxylation of diethanolamides in)
- IT 124207-38-1P 124207-39-2P 124207-40-5P 124353-33-9P 124353-34-0P
124594-31-6P
RL: IMF (Industrial manufacture); PREP (Preparation)
(prepn. of surface-active)
- IT **124594-31-6P**
RL: IMF (Industrial manufacture); PREP (Preparation)
(prepn. of surface-active)
- RN 124594-31-6 HCA
- CN Heptanamide, 2,3,3,4,4,5,5,6,6,7,7,7-dodecafluoro-N,N-bis[2-(2-hydroxyethoxy)ethyl]- (9CI) (CA INDEX NAME)



- L73 ANSWER 4 OF 13 HCA COPYRIGHT 2003 ACS on STN
111:216329 Amides containing polyoxyethylene groups and their preparation and use as **surfactants**. Selve, Claude; Delpuech, Jean Jacques; Moumni, El Mostafa; Thiolllet, Gerard (Institut National de Recherche Chimique Appliquee, Fr.). Fr. Demande FR 2615187 A1 **19881118**, 17 pp. (French). CODEN: FRXXBL. APPLICATION: FR 1987-6515 19870511.
- AB Amides $RCON[(C_2H_4O)_nZ](C_2H_4O)_mZ_1$ ($R = C_4-18$ hydrocarbyl, perfluorocarbyl, or fluorohydrocarbyl; $n, m = 1-10$; $Z, Z_1 = C_1-10$ alkyl or aralkyl) are prepd. by the reaction of acids or active acid derivs. with amines $HN[(C_2H_4O)_nZ](C_2H_4O)_mZ_1$ which are prepd. by a method involving a coupling reaction between $PhCH_2NH_2$ or an N-blocked deriv. of diethanolamine and an activated form of an alkoxyethanol or a polyethylene glycol monoalkyl ether. The amides are useful in the prepn. of microemulsions of oils including fluorinated oils such as perfluorodecalin, for lowering the

surface tension of water, and as complexing agents for metals. The amide C6F13CH2CON[(C2H4O)3Me]2 was prepd. from C6F13CH2COC1 and HN[(C2H4O)3Me]2 (I). I was prepd. by unblocking the amine Me3CN[(C2H4O)3Me]2 which was prepd. from Me3CN(CH2CH2OH)2 and p-MeC6H4SO3(CH2CH2O)2Me.

IC ICM C07C103-38
ICS B01F017-42; B01F003-08; B01D011-04

CC 46-3 (Surface Active Agents and Detergents)
Section cross-reference(s): 23, 25

ST fluoroalkanamide polyoxyethylene prepn **surfactant**; alkanamide polyoxyethylene prepn **surfactant**; amide polyoxyethylene prepn **surfactant**; **emulsifier** amide polyoxyethylene; microemulsifier amide polyoxyethylene

IT **Surfactants**
(amides contg. polyoxyethylene groups, prepn. and uses of)

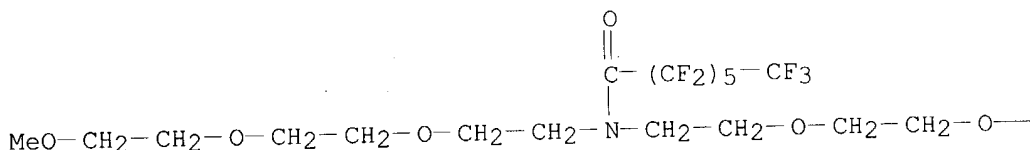
IT 111364-03-5P 111364-04-6P 111364-06-8P 111364-09-1P 111387-11-2P
123852-04-0P 123852-05-1P 123852-06-2P
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(**surfactants**, prepn. and uses of)

IT **123852-04-0P**
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(**surfactants**, prepn. and uses of)

RN 123852-04-0 HCA

CN Heptanamide, 2,2,3,3,4,4,5,5,6,6,7,7,7-tridecafluoro-N,N-bis[2-[2-(2-methoxyethoxy)ethoxy]ethyl]- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B

--CH2-CH2-OMe

L73 ANSWER 5 OF 13 HCA COPYRIGHT 2003 ACS on STN
109:101707 Silver halide photographic material for rapid processing. Suzuki, Akio; Nagasaki, Satoru; Yoshida, Eiji; Hosaka, Masumi (Konishiroku Photo Industry Co., Ltd., Japan). Eur. Pat. Appl. EP 239363 A2 **19870930**, 127 pp. DESIGNATED STATES: R: DE, FR, GB. (English). CODEN: EPXXDW. APPLICATION: EP 1987-302526 19870324. PRIORITY: JP 1986-66566 19860325; JP 1986-111671 19860515; JP 1986-230786 19860929.

GI For diagram(s), see printed CA Issue.

AB A Ag halide photog. material for rapid processing and having high sensitivity and excellent pressure resistance comprises photog. layers applied under the condition that the surface tension of a coating soln. for forming an outermost layer is 6 dyne/cm or more smaller than the

surface tension of a soln. for forming a layer adjacent to the outermost layer and satisfying that gelatin contained in at least the side of a support having a light-sensitive Ag halide emulsion layer and a hydrophilic colloid layer is in an amt. of 2.20-3.10 g/m² or that the photog. layers are formed by the constitution such that the coating soln. for the outermost layer and the coating soln. for forming the layer adjacent thereto have a viscosity of .ltoreq.20 cP. The photog. material also has .gtoreq.1 Ag halide emulsion layer contg. .gtoreq.1 sensitizing dye selected from compds. having formulas I, II, and III [R1-R5 = (substituted) alkyl, alkenyl, or aryl; .gtoreq.1 of R1 and R3 or R4 and R5 is sulfoalkyl or carboxyalkyl; R6 = H, lower alkyl, or aryl; R7, R9 = (substituted) lower alkyl; R8, R10 = lower alkyl, hydroxyalkyl, or sulfoalkyl; Z1, Z2 = nonmetallic atoms necessary for completion of a C ring; n = 1 or 2; X-, Y-, Z- = anion) and contains .gtoreq.1 surfactant in the outermost layer.

IC ICM G03C001-74

CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT 577-11-7 922-80-5 27252-75-1 60131-27-3 78678-45-2 81977-83-5
85212-75-5 115967-71-0 **116058-25-4 116058-26-5**

RL: USES (Uses)

(coating solns. contg., for protective layers for photog. films for improved pressure resistance)

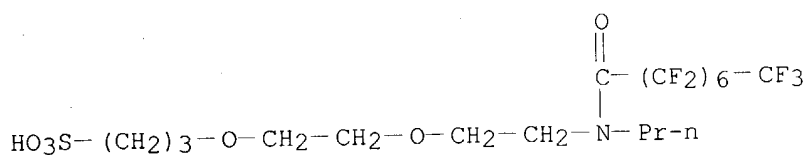
IT **116058-25-4 116058-26-5**

RL: USES (Uses)

(coating solns. contg., for protective layers for photog. films for improved pressure resistance)

RN 116058-25-4 HCA

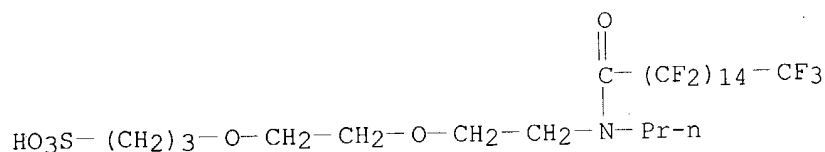
CN 1-Propanesulfonic acid, 3-[2-[2-[(2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluoro-1-oxooctyl)propylamino]ethoxy]ethoxy]-, sodium salt (9CI)
(CA INDEX NAME)



● Na

RN 116058-26-5 HCA

CN 1-Propanesulfonic acid, 3-[2-[2-[(2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,15,15,16,16,16-hentriacontafuoro-1-oxohexadecyl)propylamino]ethoxy]ethoxy]-, sodium salt (9CI) (CA INDEX NAME)



● Na

L73 ANSWER **6** OF 13 HCA COPYRIGHT 2003 ACS on STN
 103:132296 Silver halide photographic material. (Fuji Photo Film Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 60076742 A2 **19850501** Showa, 20 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1983-184728 19831003.

AB Ag halide photog. material has .gtoreq.1 Ag halide emulsion layer and contains in the emulsion layer or in other hydrophilic colloid layer, .gtoreq.1 nonionic **surfactant**, .gtoreq.1 anionic **surfactant** that contains a polyoxyethylene group, and .gtoreq.1 F-contg. **surfactant** contg. .gtoreq.1 polyoxyethylene group. The material is antistatic without having a lowered sensitivity and does not contaminate processing soln. and rollers of an automatic processing assembly. Antistatic efficiency is maintained during storage of the products. Thus, a poly(ethylene terephthalate) film was coated with a Ag(I,Br) emulsion contg. 1-phenyl-5-mercaptotetrazole and then with 1 .mu.m protective layer contg. gelatin 1.7, 2,6-dichloro-4-hydroxy-1,3,5-triazine Na salt 0.01, nonionic **surfactant** H25C12O(CH2CH2O)10H 0.06, anionic **surfactant** H25C12O(CH2CH2O)4(CH2)4SO3Na 0.035, and F-contg. **surfactant** F17C8SO2NBu(CH2CH2O)4(CH2)4SO3K 0.004 g/m2. The test showed photosensitivity 97% of the control film not contg. **surfactants**. The claimed material did not produce static mark when peeled off from a rubber sheet, whereas a control material was damaged by static marks over the whole surface. Contamination of development roller by the claimed material was not obsd.

IC ICM G03C001-82
 ICS C09K003-16

CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

ST silver halide photog antistatic **surfactant**; fluorine contg **surfactant** antistatic photog

IT Photographic films
 (antistatic layer, **surfactants** for)

IT **Surfactants**
 (in photog. film antistatic protective layer)

IT 2917-94-4 9002-92-0 31631-25-1 40160-92-7 67906-06-3 82237-38-5
 89557-98-2 89593-42-0 93124-85-7 97686-18-5 98086-34-1
 98100-60-8 98100-64-2 98100-82-4 98121-61-0 98121-62-1
 98121-64-3 98121-65-4 98121-66-5 98151-24-7 **98151-25-8**
 98151-26-9 98151-27-0 98212-61-4

RL: USES (Uses)
 (photog. film antistatic protective layer contg.)

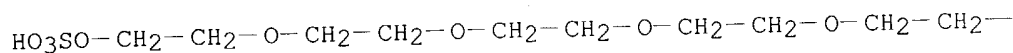
IT 2736-18-7
 RL: USES (Uses)
 (photog. film antistatic protective layer contg. **surfactants** and)

IT **98151-25-8**
 RL: USES (Uses)
 (photog. film antistatic protective layer contg.)

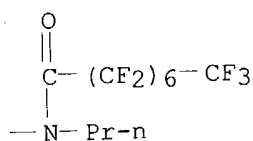
RN 98151-25-8 HCA

CN Octanamide, 2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluoro-N-propyl-N-[14-(sulfooxy)-3,6,9,12-tetraoxatetradec-1-yl]- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



L73 ANSWER 7 OF 13 HCA COPYRIGHT 2003 ACS on STN
 100:210142 Amido and hydrazido derivatives of N-trifluoroacetyl-N-phosphinothioylmethylglycine esters. Franz, John E.; Kaufman, Robert J. (Monsanto Co., USA). U.S. US 4421549 A **19831220**, 11 pp. (English). CODEN: USXXAM. APPLICATION: US 1979-107209 19791226.

AB Twenty five title compds., RO2CCH2N(COCF3)CH2P(S)R12 (I, R = C1-8 alkyl, C1-4 chloroalkyl, C3-7 alkoxy; R1 = NHR2, NR22, R2 = C1-4 alkyl, C2-4 alkenyl, C3-7 cycloalkyl, PhCH2, Ph, NHR3, NR32, R3 = C1-4 alkyl, Ph, NHCO2Me; NR22 = morpholino, piperidino, 1-pyrrolidinyl) were prepd. by amidation and sulfuration of RO2CCH2N(COCF3)CH2PCl2 (II). Thus, 10.52 g II (R = ClCH2CH2) was treated with 2.72 g Me2NH and 6.09 g Et3N in THF 2 h, followed by stirring with S overnight to give 6.65 g I (R = ClCH2CH2, R1 = Me2N). Extensive data was given for the effectiveness of I as herbicides. At 11.2 kg/ha, I (R = Et, R1 = PrNH), gave 100% kill of Canada Thistle and Smartweed after 4 wks.

IC A01N057-12; A01N057-14; A01N057-16
 NCL 071087000
 CC 29-7 (Organometallic and Organometalloidal Compounds)
 Section cross-reference(s): 5

IT 77150-59-5 **89566-36-9** 89566-37-0 89566-38-1 89566-39-2
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (chlorination and amidation of)

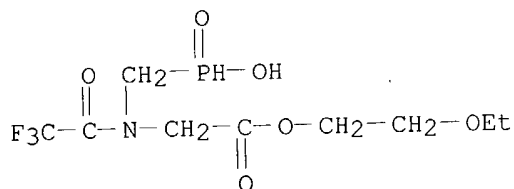
IT 77150-37-9P 77150-38-0P 77150-39-1P 77150-41-5P 77150-42-6P
 77150-43-7P 77150-44-8P 77150-45-9P 77150-46-0P 77150-47-1P
 77150-48-2P 77150-49-3P 77150-50-6P 77150-51-7P 77150-52-8P
 77150-53-9P 77150-54-0P 77150-55-1P 77150-56-2P 77150-57-3P
 77150-58-4P 77156-37-7P **79673-86-2P** 89566-34-7P
 89566-35-8P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (prepn. and herbicidal activity for)

IT 89566-40-5P **89566-41-6P** 89566-42-7P 89566-43-8P
 89566-44-9P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)
 (prepn., amidation, and sulfuration of)

IT **89566-36-9**
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (chlorination and amidation of)

RN 89566-36-9 HCA
 CN Glycine, N-[(hydroxyphosphinyl)methyl]-N-(trifluoroacetyl)-, 2-ethoxyethyl

ester (9CI) (CA INDEX NAME)

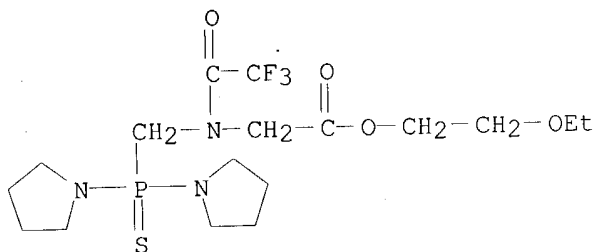


IT 79673-86-2P

RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and herbicidal activity for)

RN 79673-86-2 HCA

CN Glycine, N-[(di-1-pyrrolidinylphosphinothioyl)methyl]-N-(trifluoroacetyl)-, 2-ethoxyethyl ester (9CI) (CA INDEX NAME)

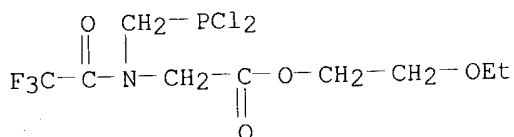


IT 89566-41-6P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)
(prepn., amidation, and sulfuration of)

RN 89566-41-6 HCA

CN Glycine, N-[(dichlorophosphino)methyl]-N-(trifluoroacetyl)-, 2-ethoxyethyl ester (9CI) (CA INDEX NAME)



L73 ANSWER 8 OF 13 HCA COPYRIGHT 2003 ACS on STN

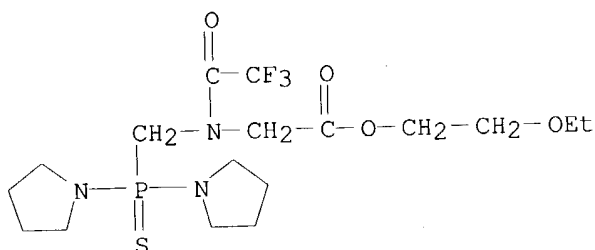
95:187424 Amido and hydrazido derivatives of N-phosphinothioylmethylglycine esters. Franz, John Edward; Kaufman, Robert John (Monsanto Co., USA).

Eur. Pat. Appl. EP 31714 19810708, 29 pp. (English). CODEN: EPXXDW. APPLICATION: EP 1980-304693 19801223.

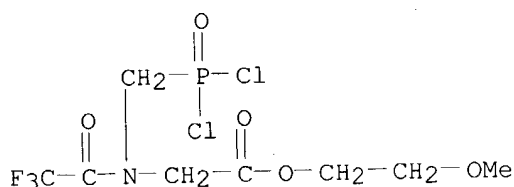
AB Twelve title compds., RO₂CCH₂NHCH₂P(S)R₁₂ (I, R = C₁-8 alkyl, C₁-4 chloroalkyl, C₃-7 alkoxyalkyl; R₁ = NR₂₂, R₂ = H, C₁-4 alkyl, C₂-4 alkenyl, C₃-7 cycloalkyl, PhCH₂, Ph, R₁ = morpholino, pyrrolidinyl, piperidino, NHR₂, R₂ = NR₃₂, R₃ = H, C₁-4 alkyl, Ph, heterocyclic group) were prepd. by deacylation of RO₂CCH₂N(COCF₃)CH₂P(S)R₁₂. Thus, EtO₂CCH₂N(COCF₃)CH₂P(S)(NMe₂)₂ was deacylated with NaBH₄ in EtOH to give EtO₂CCH₂NHCH₂P(S)(NMe₂)₂ (II). Data was given for the effectiveness of I as herbicides. At 5.6 kg/ha II gave 100% kill of Canada Thistle and Cocklebur.

IC C07F009-44; C07F009-65; A01N057-26

CC 29-7 (Organometallic and Organometalloidal Compounds)
 Section cross-reference(s): 5
 IT 77150-39-1 77150-40-4 77150-44-8 77150-45-9 77150-46-0
 77150-47-1 77150-48-2 77150-55-1 77150-56-2 77150-57-3
79673-86-2 79673-87-3
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (deacylation of)
 IT **79673-86-2**
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (deacylation of)
 RN 79673-86-2 HCA
 CN Glycine, N-[(di-1-pyrrolidinylphosphinothioyl)methyl]-N-(trifluoroacetyl)-
 , 2-ethoxyethyl ester (9CI) (CA INDEX NAME)



L73 ANSWER 9 OF 13 HCA COPYRIGHT 2003 ACS on STN
 93:168406 Amide and hydrazide derivatives of N-trifluoroacetyl-N-phosphonomethylglycine, herbicidal compositions and their use. Franz, John Edward; Kaufman, Robert John (Monsanto Co., USA). Eur. Pat. Appl. EP 8852 **19800319**, 30 pp. (English). CODEN: EPXXDW. APPLICATION: EP 1979-301307 19790706.
 AB Approx. 20 title compds. F3CCON(CH2CO2R)CH2P(O)(NR1R2)2 [I, R = C1-10 alkyl, chloroalkyl, alkoxyalkyl; R1 = H, alkyl, alkenyl, alkynyl; R2 = alkyl, alkenyl, alkynyl, cycloalkyl, NR3R4, R3 = alkyl, phenyl; R4 = H, alkyl; NR3R4 = heterocyclyl] were prepd. by amidation of F3CCON(CH2CO2R)CH2P(O)Cl2 with HNR1R2. Thus, 0.0423 mol BuNH2 and 0.01 mol F3CCON(CH2CO2Et)CH2P(O)Cl2 gave 3.3 g I (R = Et, R1 = H, R2 = Bu) (II). At 11.2 kg/ha after 4 wks, II gave 100% kill of Lambsquarters.
 IC C07F009-44; A01N057-26; C07F009-65
 CC 29-7 (Organometallic and Organometalloidal Compounds)
 Section cross-reference(s): 5
 IT 72909-30-9 72909-31-0 73371-68-3 **73371-70-7**
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (amidation of)
 IT 75157-28-7P 75157-29-8P 75157-30-1P 75157-31-2P 75157-32-3P
 75157-33-4P 75157-34-5P 75157-35-6P 75157-36-7P 75157-37-8P
75157-38-9P 75157-39-0P 75157-40-3P 75157-41-4P
 75157-42-5P 75174-09-3P 75174-10-6P 75174-11-7P 75174-12-8P
 RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses) (prepn. and herbicidal activity of)
 IT **73371-70-7**
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (amidation of)
 RN 73371-70-7 HCA
 CN Glycine, N-[(dichlorophosphinyl)methyl]-N-(trifluoroacetyl)-, 2-methoxyethyl ester (9CI) (CA INDEX NAME)

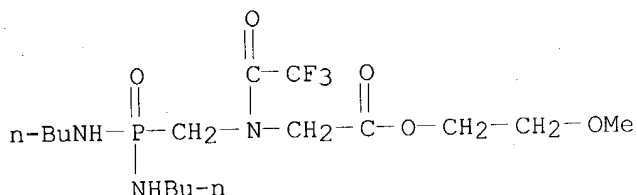


IT 75157-38-9P

RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses) (prepn. and herbicidal activity of)

RN 75157-38-9 HCA

CN Glycine, N-[[bis(butylamino)phosphinyl]methyl]-N-(trifluoroacetyl)-, 2-methoxyethyl ester (9CI) (CA INDEX NAME)



L73 ANSWER 10 OF 13 HCA COPYRIGHT 2003 ACS on STN

93:95660 N-Trifluoroacetyl-N-phosphonomethylglycine dichloride derivatives.

Franz, John E. (Monsanto Co., USA). U.S. US 4199345 19800422, 5 pp. Cont.-in-part. of U.S. Ser. No. 894,070 abandoned. (English). CODEN: USXXAM. APPLICATION: US 1978-954276 19781025.

AB C12P(O)CH2N(COCF3)CH2COR (I; R = Cl, Cl-10 alkoxy, C3-6 alkoxyalkoxy, C5-9 alkoxyalkoxyalkoxy) were prep'd. as post-emergent herbicides. Thus, (HO)2P(O)CH2-Gly-OEt was acylated with (CF3CO)2O and then chlorinated with SOCl2 to give 96% I (R = OEt). Post-emergent herbicidal activities of I (R = Cl, OEt, OBu, OCH2CH2Cl, OCH2CH2OMe, decyloxy) are given for 20 plant species.

IC A01N009-36; C07C101-06

NCL 071086000

CC 34-2 (Synthesis of Amino Acids, Peptides, and Proteins)
Section cross-reference(s): 5, 29

IT 72909-28-5P 72909-30-9P 72909-31-0P 73371-68-3P 73371-70-7P
73997-23-6P

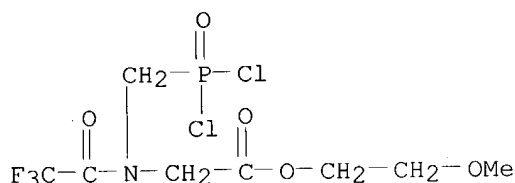
RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses) (prepn. and herbicidal activity of)

IT 73371-70-7P

RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses) (prepn. and herbicidal activity of)

RN 73371-70-7 HCA

CN Glycine, N-[(dichlorophosphinyl)methyl]-N-(trifluoroacetyl)-, 2-methoxyethyl ester (9CI) (CA INDEX NAME)



L73 ANSWER 11 OF 13 HCA COPYRIGHT 2003 ACS on STN
 93:72295 N-Trifluoroacetyl-N-phosphinothioylmethylglycine esters. Franz, John
 E.; Kaufman, Robert J. (Monsanto Co., USA). U.S. US 4195983
19800401, 6 pp. (English). CODEN: USXXAM. APPLICATION: US
 1978-973317 19781226.

AB R2P(S)CH2N(COCF3)CH2CO2R1 [I; R = C1-6 alkoxy or alkylthio, cyanoalkoxy,
 chloroalkenyloxy, (un)substituted PhO or PhS; R1 = C1-10 alkyl, C1-4
 chloroalkyl, C3-7 alkoxyalkyl] were prep'd. as herbicides. Thus,
 (HO)2P(O)CH2N(COCF3)CH2CO2Et was chlorinated with PCl3 in benzene to give
 Cl2P(O)CH2N(COCF3)CH2CO2Et, which was treated with MeSH and S in THF to
 give (MeS)2P(S)CH2N(COCF3)CH2CO2Et. Post-emergence herbicidal activities
 are given for 8 I derivs.

IC A01N009-36; C07F009-40
 NCL 071087000
 CC 34-2 (Synthesis of Amino Acids, Peptides, and Proteins)
 Section cross-reference(s): 5, 29

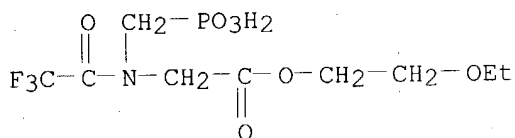
IT **74412-20-7** 74412-22-9
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (chlorination of)

IT **74412-12-7P** 74412-13-8P 74412-14-9P 74412-15-0P
 74412-16-1P 74412-17-2P 74412-18-3P 74445-13-9P
 RL: AGR (Agricultural use); BAC (Biological activity or effector, except
 adverse); BSU (Biological study, unclassified); SPN (Synthetic
 preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (prepn. and herbicidal activity of)

IT **74412-21-8P**
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)
 (prepn. and reaction of, with ethanol and sulfur)

IT **74412-20-7**
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (chlorination of)

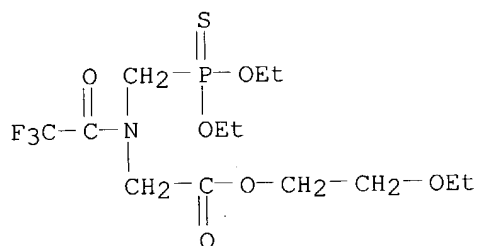
RN 74412-20-7 HCA
 CN Glycine, N-(phosphonomethyl)-N-(trifluoroacetyl)-, 1-(2-ethoxyethyl) ester
 (9CI) (CA INDEX NAME)



IT **74412-12-7P**
 RL: AGR (Agricultural use); BAC (Biological activity or effector, except
 adverse); BSU (Biological study, unclassified); SPN (Synthetic
 preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (prepn. and herbicidal activity of)

RN 74412-12-7 HCA

CN Glycine, N-[(diethoxyphosphinothioyl)methyl]-N-(trifluoroacetyl)-, 2-ethoxyethyl ester (9CI) (CA INDEX NAME)

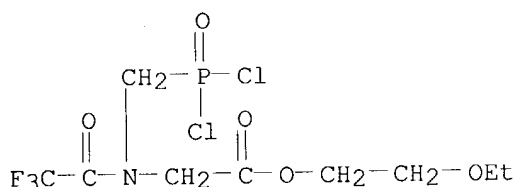


IT **74412-21-8P**

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and reaction of, with ethanol and sulfur)

RN 74412-21-8 HCA

CN Glycine, N-[(dichlorophosphinyl)methyl]-N-(trifluoroacetyl)-, 2-ethoxyethyl ester (9CI) (CA INDEX NAME)



L73 ANSWER 12 OF 13 HCA COPYRIGHT 2003 ACS on STN

93:72278 N-(Trifluoroacetyl)-N-(phosphonomethyl)glycine dichloride. (Monsanto Co., USA). Jpn. Kokai Tokkyo Koho JP 54135725 **19791022** Showa, 7 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1979-41905 19790405.

AB CF₃CON[CH₂P(O)Cl₂]CH₂COR (I, R = Cl-10 alkoxy, C3-6 alkoxyalkoxy, C5-9 alkoxyalkoxyalkoxy, Cl, chloroalkoxy) were prep'd. Thus, 100 mL (CF₃CO)₂O was treated with 60 g (HO)₂P(O)CH₂NHCH₂CO₂Et for 2 h and the resulting product was treated with 172 g SOCl₂ to give 96 g I (R = OEt). I (R = Cl, OCH₂CH₂OMe, OCH₂CH₂Cl, decyloxy) were also prep'd.

IC C07F009-42; A01N009-36

CC 34-2 (Synthesis of Amino Acids, Peptides, and Proteins)
Section cross-reference(s): 29

IT 72909-28-5P 72909-31-0P 73371-68-3P **73371-70-7P**
73997-23-6P

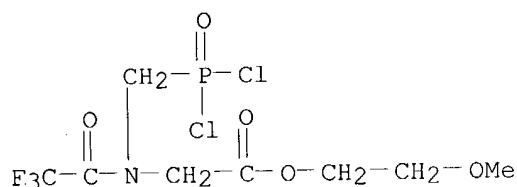
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

IT **73371-70-7P**

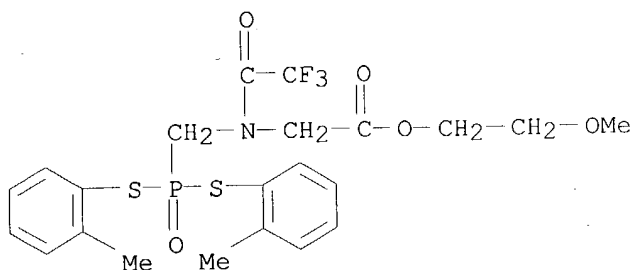
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

RN 73371-70-7 HCA

CN Glycine, N-[(dichlorophosphinyl)methyl]-N-(trifluoroacetyl)-, 2-methoxyethyl ester (9CI) (CA INDEX NAME)



- L73 ANSWER (13) OF 13 HCA COPYRIGHT 2003 ACS on STN
 92:164299 Thio derivatives of N-trifluoroacetyl-N-phosphonomethylglycine.
 Franz, John E.; Kaufman, Robert J. (Monsanto Co., USA). U.S. US 4175946
19791127, 9 pp. (English). CODEN: USXXAM. APPLICATION: US
 1978-922900 19780710.
- AB (RS)2P(O)CH2N(COCF3)CH2CO2R1 (I, R = alkyl, alkenyl, PhCH2, Ph, substituted Ph; R1 = C1-10 alkyl) were prep'd. as herbicides. Thus, Cl2P(O)CH2N(COCF3)CH2CO2Et was treated with .alpha.-toluenethiol in ether contg. Et3N to give (PhCH2S)2P(O)CH2N(COCF3)CH2CO2Et. Postemergence and preemergence herbicidal activities are given for 24 I derivs.
- IC A01N009-36
 NCL 071087000
 CC 34-2 (Synthesis of Amino Acids, Peptides, and Proteins)
 Section cross-reference(s): 5, 29
- IT 73371-50-3P 73371-51-4P 73371-52-5P 73371-53-6P 73371-54-7P
 73371-55-8P 73371-56-9P 73371-57-0P 73371-58-1P 73371-59-2P
 73371-60-5P 73371-61-6P 73371-62-7P 73371-63-8P 73371-64-9P
 73371-65-0P 73371-66-1P 73371-67-2P 73371-69-4P **73371-71-8P**
 73371-72-9P 73371-73-0P 73371-74-1P 73371-75-2P 73371-76-3DP, thio
 derivs. 73371-77-4P
 RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses) (prepn. and herbicidal activity of)
- IT 72909-28-5 72909-30-9 72909-31-0 73371-68-3 **73371-70-7**
 RL: RCT (Reactant); RACT (Reactant or reagent) (reaction of, with thiols)
- IT **73371-71-8P**
 RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses) (prepn. and herbicidal activity of)
- RN 73371-71-8 HCA
 CN Glycine, N-[[bis[(2-methylphenyl)thio]phosphinyl)methyl]-N-(trifluoroacetyl)-, 2-methoxyethyl ester (9CI) (CA INDEX NAME)

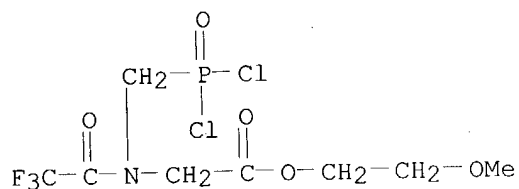


IT **73371-70-7**

RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with thiols)

RN 73371-70-7 HCA

CN Glycine, N-[(dichlorophosphinyl)methyl]-N-(trifluoroacetyl)-,
2-methoxyethyl ester (9CI) (CA INDEX NAME)



Jonathan,

I included a few of these, even though they are not relating to
batteries or surfactants.

=> d L83 1,7,14,19,24,29,31,38,46,52,61,72-77 cbib abs hitstr

L83 ANSWER 1 OF 77 HCA COPYRIGHT 2003 ACS on STN

136:209640 Use of metal complexes containing perfluoroalkyl as contrast agents
in MR-imaging for the representation of plaques, tumors and necroses.
Platzek, Johannes; Mareski, Peter; Niedballa, Ulrich; Raduechel, Bernd;
Weinmann, Hanns-Joachim; Misselwitz, Bernd (Schering Aktiengesellschaft,
Germany). PCT Int. Appl. WO 2002013874 A2 20020221, 387 pp. DESIGNATED
STATES: W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH,
CN, CO, CR, CU, CZ, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR,
HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV,
MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI,
SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG,
KZ, MD, RU, TJ, TM; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK,
ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD,
TG, TR. (German). CODEN: PIXXD2. APPLICATION: WO 2001-EP8498 20010723.
PRIORITY: DE 2000-10040380 20000811.

AB The invention relates to the use of metal complexes contg. perfluoroalkyl,
comprising a crit. micelle formation concn. < 10⁻³ mol/L, a hydrodynamic
micelle diam. of (2 Rh) > 1 nm and a proton relaxivity in plasma (R1) > 10
L/mmol, as contrast agents in MR imaging for the representation of plaque,
lymph node, infarcted and necrotic tissue and for independent
representation of necrotic tissue and tumoral tissue. For example, the Gd
complex of 1,4,7-tris(carboxylatomethyl)-10-[(3-aza-4-oxo-5-
methylpentanoyl-5-yl-N-(2-methoxyethyl)-N-(1H,1H,2H,2H,4H,4H,5H,5H-3-
oxa)perfluorotridecyl)amide]-1,4,7,10-tetraazacyclododecane was prepd. in
a multistep process from 1H,1H,2H,2H,4H,4H,5H,5H-3-oxaperfluorotridecanoic
acid and 2-methoxyethylamine, followed by redn. to the resp. amine and
reaction with the Gd complex of 10-[1-(carboxymethylcarbamoyl)ethyl]-
1,4,7,10-tetraazacyclododecane-1,4,7-triacetic acid.

IT 114849-13-7P 400890-91-7P

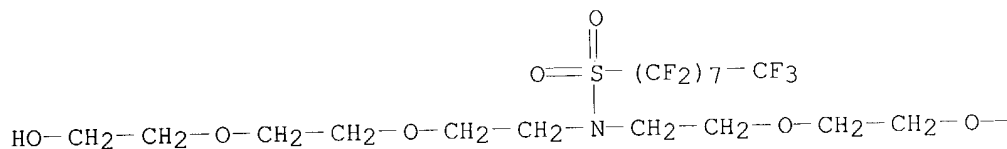
RL: DGN (Diagnostic use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. and formulation with gadolinium perfluoroalkyl-contg. tetraazacyclodecanetriacetate complexes as MRI contrast agents)

RN 114849-13-7 HCA

CN 1-Octanesulfonamide, 1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptafluoro-N,N-bis[2-[2-(2-hydroxyethoxy)ethoxy]ethyl]- (9CI) (CA INDEX NAME)

PAGE 1-A

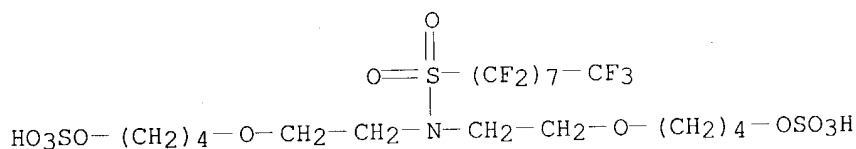


PAGE 1-B

—CH₂—CH₂—OH

RN 400890-91-7 HCA

CN 1-Octanesulfonamide, 1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptafluoro-N,N-bis[2-[4-(sulfooxy)butoxy]ethyl]-, disodium salt (9CI) (CA INDEX NAME)



● 2 Na

L83 ANSWER 7 OF 77 HCA COPYRIGHT 2003 ACS on STN

134:155184 Silver halide photographic material and its processing. Takabayashi, Toshiyuki (Konica Co., Japan). Jpn. Kokai Tokkyo Koho JP 2001033912 A2 20010209, 71 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1999-201740 19990715.

AB The material comprises a support having thereon layers in which the outermost layer contains an urethane latex, a fluorine surfactant, and a lubricant. It is processed by an automatic developing app. for 10-60 s dry to dry total processing time, involving steps of developing, fixing, stabilizing, washing and/or rinsing, and drying;. It shows high contrast and improved abrasion resistance and dirt prevention.

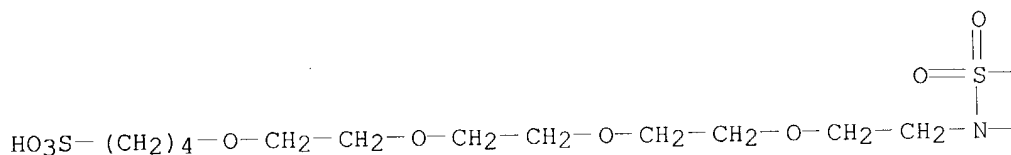
IT 89568-47-8

RL: DEV (Device component use); MOA (Modifier or additive use); USES (Uses)

(photog. film with uppermost layer contg. urethane latex,

fluorosurfactant, and lubricant)
 RN 89568-47-8 HCA
 CN 5,8,11,14-Tetraoxa-18-thia-17-azahexacosane-1-sulfonic acid,
 19,19,20,20,21,21,22,22,23,23,24,24,25,25,26,26,26-heptadecafluoro-17-
 propyl-, 18,18-dioxide, sodium salt (9CI) (CA INDEX NAME)

PAGE 1-A



● Na

PAGE 1-B

— (CF₂)₇—CF₃

—Pr-n

L83 ANSWER 14 OF 77 HCA COPYRIGHT 2003 ACS on STN
 131:293256 Silver halide photographic material for making printing plate, its
 processing and image formation using same. Takabayashi, Toshiyuki (Konica
 Co., Japan). Jpn. Kokai Tokkyo Koho JP 11288060 A2 **19991019**
 Heisei, 54 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1998-91529
 19980403.

AB The title photog. material, possessing .gtoreq.1 Ag halide emulsion layer
 and .gtoreq.1 non-photosensitive hydrophilic colloid layer on a support,
 contains .gtoreq.3 kinds of F-contg. surfactants and a lubricant in the
 topmost layer. The material is processed with a developing soln. of pH
 9.0-10.6 to form a high contrast image with .gamma. value .gtoreq.10. The
 material is processed at replenishment rate of 30-150 mL/m² for the
 developing soln. and 50-300 mL/m² for the fixing soln. The material
 provides a high contrast image with excellent small-dot reproducibility
 and shows high scratch resistance, and is suitable for simultaneously
 development and fixing.

IT **89568-47-8**

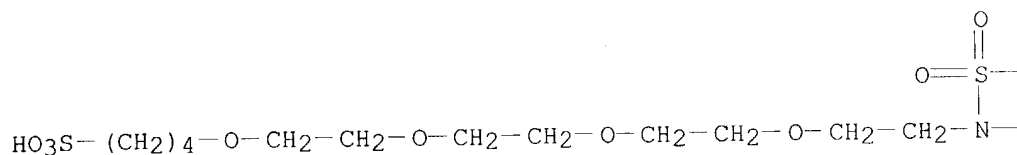
RL: DEV (Device component use); MOA (Modifier or additive use); USES
 (Uses)

(surfactant; processing of Ag halide photog. film having most top layer
 contg. fluorosurfactant and lubricant for making printing plate)

RN 89568-47-8 HCA

CN 5,8,11,14-Tetraoxa-18-thia-17-azahexacosane-1-sulfonic acid,
 19,19,20,20,21,21,22,22,23,23,24,24,25,25,26,26,26-heptadecafluoro-17-
 propyl-, 18,18-dioxide, sodium salt (9CI) (CA INDEX NAME)

PAGE 1-A



● Na

PAGE 1-B

— (CF₂)₇—CF₃

— Pr-n

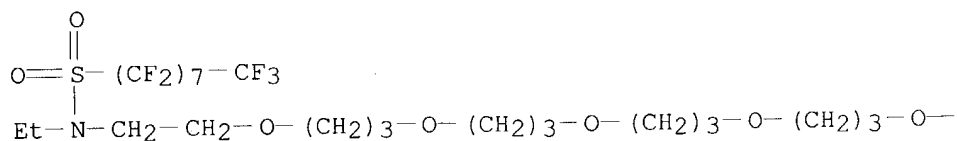
L83 ANSWER 19 OF 77 HCA COPYRIGHT 2003 ACS on STN
 127:249342 Carpet yarn having high soil resistance. Goeman, Bart (Minnesota Mining and Manufacturing Co., USA). PCT Int. Appl. WO 9733019 A1
19970912, 29 pp. DESIGNATED STATES: W: AU, CA, JP, MX; RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE.
 (English). CODEN: PIXXD2. APPLICATION: WO 1997-US2398 19970218.
 PRIORITY: EP 1996-103564 19960307.

AB This invention relates to carpet yarn comprising a plurality of filaments of a thermoplastic polymer with a fluorochem. or non-fluorochem. hydrophilicity imparting compd. dispersed within said filaments. Soil-resistant carpet can be made from the yarns without the needs for scouring or external treatment. Thus, extruding pellets of polypropylene contg. 0.3% C₈F₁₇SO₂N(Et)CH₂CH₂O(CH₂CH₂O)₇CH₃ as the hydrophilizing agent, treating the resulting yarns with spin oil while cooling on a kiss roll, drawing, and tufting gave a carpet having good soil resistance.

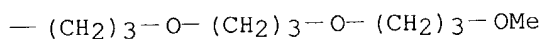
IT **195827-34-0**
 RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
 (internal antisoiling agents; carpet yarn having high soil resistance)

RN 195827-34-0 HCA
 CN 1-Octanesulfonamide, N-ethyl-1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptafluoro-N-3,7,11,15,19,23,27,31-octaodotriacont-1-yl- (9CI) (CA INDEX NAME)

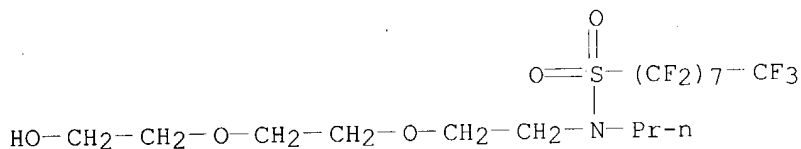
PAGE 1-A



PAGE 1-B

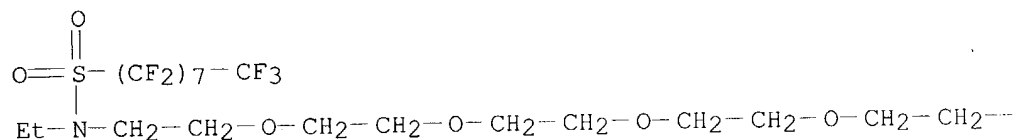


- L83 ANSWER 24 OF 77 HCA COPYRIGHT 2003 ACS on STN
 124:10184 Coloring resin compositions and their preparation. Koide, Masashi; Machida, Yasuaki; Suzuki, Junichi (Toyo Ink Manufacturing Co., Ltd., Japan). PCT Int. Appl. WO 9523177 A1 **19950831**, 43 pp.
 DESIGNATED STATES: W: KR, US. (Japanese). CODEN: PIXXD2. APPLICATION: WO 1995-JP295 19950227. PRIORITY: JP 1994-27759 19940225; JP 1994-40764 19940311; JP 1994-40765 19940311.
- AB A coloring resin compn. is prepd. by phase substituting and dehydrating pigments, water, a thermoplastic resin, optionally, an aq. soln. or dispersion of a synthetic resin, and an aq. compd. in a double-screw extruder. The coloring resin compn. (master batch) has superior pigment dispersing qualities, is free from discoloration, and provides uniform coloring. An example of such compn. contained 60 parts polyethylene, 40 parts Lionol Blue 7110V, and 40 parts water, extruded at 140.degree.; and used to coloring polypropylene yarn.
- IT **146670-61-3**, Eftop EF 122C
 RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
 (coloring resin compns. and their prepn.)
- RN 146670-61-3 HCA
 CN 1-Octanesulfonamide, 1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-N-[2-[2-(2-hydroxyethoxy)ethoxy]ethyl]-N-propyl- (9CI) (CA INDEX NAME)

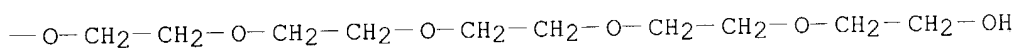


- L83 ANSWER 29 OF 77 HCA COPYRIGHT 2003 ACS on STN
 122:20470 Semiconducting rubber material for electrophotographic parts. Hirano, Yasuo; Aoto, Atsushi (Ricoh Kk, Japan). Jpn. Kokai Tokkyo Koho JP 06240145 A2 **19940830** Heisei, 6 pp. (Japanese). CODEN: JKXXAF.
 APPLICATION: JP 1993-52956 19930218.
- AB The material is obtained by covulcanization of $[\text{SiMe}(\text{CH}_2\text{CH}_2\text{CF}_3)\text{O}]_n$ and an epichlorohydrin polymer. The material may contain F-contg. surfactants. The material showed stable sp. elec. resistance.
- IT **159559-81-6**
 RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses)
 (surfactant; semiconducting rubber obtained by vulcanization of fluorosilicone polymer and epichlorohydrin polymer for electrophotog. parts)
- RN 159559-81-6 HCA
 CN 1-Octanesulfonamide, N-ethyl-1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-N-(29-hydroxy-3,6,9,12,15,18,21,24,27-nonaioxanonacos-1-yl)- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



L83 ANSWER 31 OF 77 HCA COPYRIGHT 2003 ACS on STN
 120:284851 Silver halide photographic material containing F-containing surfactant to improve rapid processing capability. Ishigaki, Kunio (Fuji Photo Film Co Ltd, Japan). Jpn. Kokai Tokkyo Koho JP 05297508 A2
19931112 Heisei, 13 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1992-104544 19920423.

AB The claimed photog. emulsion having .gtoreq.1 Ag halide emulsion layer(s) on the support is characterized by (1) that the emulsion layer and/or other hydrophilic colloid layer(s) contain a F-contg. surfactant and (2) the ratio of emulsion hardness at 3 days after coating vs. final hardness 1.0-2.0. The material which can be processed within 15-60 s with the line speed (web transport speed of the processor) of .gtoreq.1500 mm/min is also claimed. Also claimed is the material which can be processed by non-Al fixer. Preferable hardening agents for the material are vinylsulfone derivs.

IT **89568-47-8**

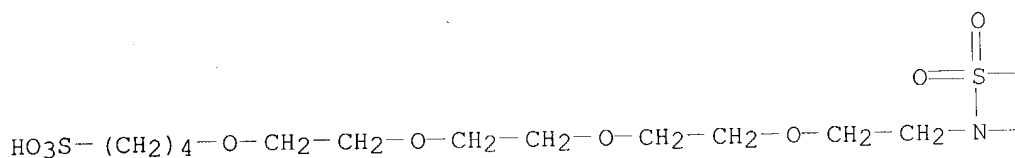
RL: USES (Uses)

(surfactant, photog. material contg., for rapid processing)

RN 89568-47-8 HCA

CN 5,8,11,14-Tetraoxa-18-thia-17-azahexacosane-1-sulfonic acid,
 19,19,20,20,21,21,22,22,23,23,24,24,25,25,26,26,26-heptafluoro-17-propyl-, 18,18-dioxide, sodium salt (9CI) (CA INDEX NAME)

PAGE 1-A



● Na

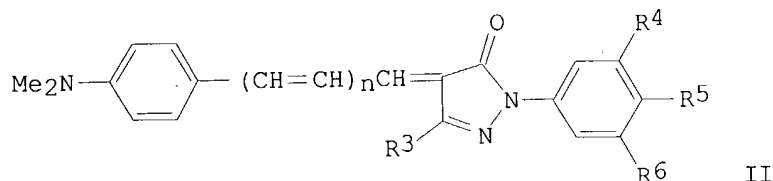
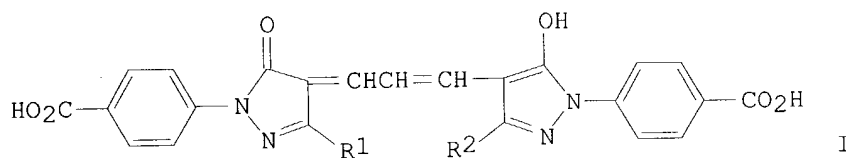
PAGE 1-B

— (CF₂)₇—CF₃

—Pr-n

L83 ANSWER 38 OF 77 HCA COPYRIGHT 2003 ACS on STN
 116:245205 Silver halide photographic material. Taguchi, Masaaki (Konica Co.,
 Japan). Jpn. Kokai Tokkyo Koho JP 04029131 A2 **19920131** Heisei,
 11 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1990-136513 19900524.

GI



AB In the title material comprising a support having thereon one or more Ag halide emulsion layers, the emulsion layers contain 0.5 mol% AgI and consist of monodispersed grains of Ag(Br,I). The title material has a hydrophilic colloid layer between the support and the Ag halide emulsion layers. The hydrophilic colloid layer contains microcryst. particles of at least one compd. selected from I (R₁, R₂ = alkyl) and II (R₃ = alkyl, alkoxy carbonyl, acyl; R₄-R₆ = H, carboxy; R₄, R₅, R₆ cannot be H at the same time; n = 0 or 1). The title material also contains at least one fluorinated surfactant. The title material shows high sensitivity. The use of the title material gives sharp images.

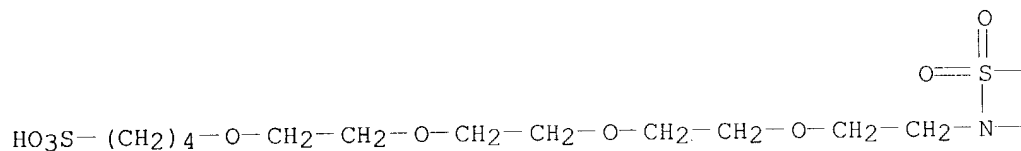
IT **89568-47-8 141405-83-6**

RL: TEM (Technical or engineered material use); USES (Uses)
 (silver halide photog. materials contg.)

RN 89568-47-8 HCA

CN 5,8,11,14-Tetraoxa-18-thia-17-azahexacosane-1-sulfonic acid,
 19,19,20,20,21,21,22,22,23,23,24,24,25,25,26,26,26-heptafluoro-17-
 propyl-, 18,18-dioxide, sodium salt (9CI) (CA INDEX NAME)

PAGE 1-A



● Na

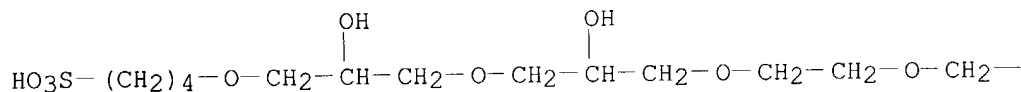
PAGE 1-B

— (CF₂)₇—CF₃

— Pr-n

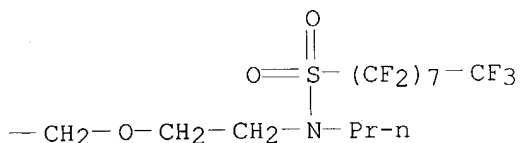
RN 141405-83-6 HCA
 CN 5,9,13,16,19-Pentaoxa-23-thia-22-azahentriacontane-1-sulfonic acid,
 24,24,25,25,26,26,27,27,28,28,29,29,30,30,31,31,31-heptafluoro-7,11-
 dihydroxy-22-propyl-, 23,23-dioxide, monosodium salt (9CI) (CA INDEX
 NAME)

PAGE 1-A



● Na

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L83 ANSWER 46 OF 77 HCA COPYRIGHT 2003 ACS on STN
 110:227112 Residual toxicity of some fluoroaliphatic sulfones to the red
 imported fire ant, *Solenopsis invicta* (Hymenoptera: Formicidae).
 Lofgren, C. S.; Banks, W. A.; Vander Meer, R. K.; Williams, D. F. (Insects
 Affect. Man Anim. Res. Lab., U. S. Dep. Agric., Gainesville, FL, 32604,
 USA). Florida Entomologist, 72(1), 140-6 (English) 1989.

CODEN: FETMAC. ISSN: 0015-4040.

AB Thirty-six fluoroaliph. sulfones were tested for residual toxicity to *S. invicta* in soil. Six of the compds. gave >90% kill of the ants after they were exposed for 4 days at 10 ppm. At 1.0 ppm, only one compd., AI3-10841, gave appreciable mortality. This compd. was tested at 120 ppm in soil held outdoors under ambient summer conditions. Mortality 8 days following initial exposure to samples of this soil was 100% for 12 wks and 91 to 100% from 20 to 36 wks.

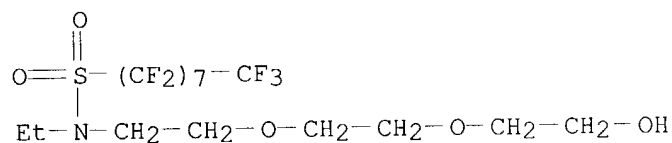
IT **52287-95-3**, AI 3-29753

RL: PRP (Properties)

(toxicity of, to imported fire and)

RN 52287-95-3 HCA

CN 1-Octanesulfonamide, N-ethyl-1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-N-[2-[2-(2-hydroxyethoxy)ethoxy]ethyl]- (9CI) (CA INDEX NAME)



L83 ANSWER 52 OF 77 HCA COPYRIGHT 2003 ACS on STN

107:165334 Silver halide photographic photosensitive materials. Kuraki, Yasuo; Maekawa, Yukio; Suga, Shuzo (Fuji Photo Film Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 62006255 A2 **19870113** Showa, 16 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1985-144894 19850702.

AB The claimed photog. materials contain F-contg. nonionic and ionic surfactants. The photog. materials show excellent antistatic characteristics.

IT **89568-47-8**

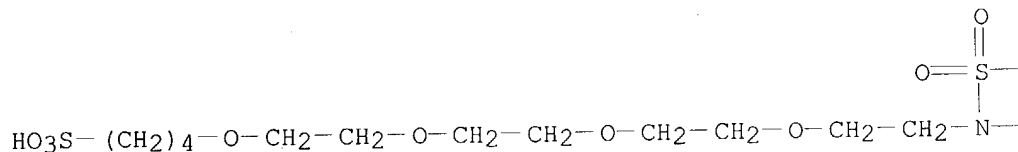
RL: USES (Uses)

(photog. antistatic compn. contg.)

RN 89568-47-8 HCA

CN 5,8,11,14-Tetraoxa-18-thia-17-azahexacosane-1-sulfonic acid, 19,19,20,20,21,21,22,22,23,23,24,24,25,25,26,26,26-heptadecafluoro-17-propyl-, 18,18-dioxide, sodium salt (9CI) (CA INDEX NAME)

PAGE 1-A



● Na

PAGE 1-B

$$-(\text{CF}_2)_7-\text{CF}_3$$

— Pr-n

L83 ANSWER 61 OF 77 HCA COPYRIGHT 2003 ACS on STN

104:64161 Fluoroaliphatic sulfones: a new class of delayed-action insecticides for control of *Solenopsis invicta* (Hymenoptera: Formicidae). Vander Meer, Robert K.; Lofgren, Clifford S.; Williams, David F. (Insects Affecting Man Anim. Res. Lab., U.S. Dep. Agric., Gainesville, FL, 32604, USA). Journal of Economic Entomology, 78(6), 1190-7 (English) 1985. CODEN: JEENAI. ISSN: 0022-0493.

1985. CODEN: JEENAL. ISSN: 0022-0493.

AB Lab. testing of fluoroaliph. sulfones showed that, in particular, sulfonamide analogs have potential as delayed-action toxicants for control of the red imported fire ant, *S. invicta*. Depending on the double bond position, unsatd. hydrocarbon substituents gave either fast kill or delayed activity. Monoalc. substituents showed delayed activity, but diols were inactive. Polyether substituents, either H or Me end-capped, showed similar delayed activity. The C8F17 fluorocarbon radical yielded the best activity. Both the fluorocarbon and sulfone groups were essential to the activity of this class of compds.

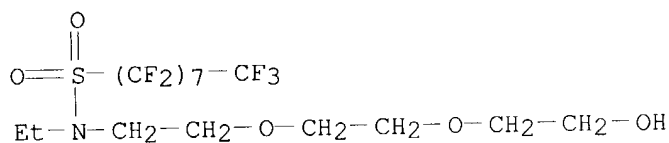
IT 52287-95-3 87988-76-9 100221-79-2
100221-80-5

100221-80-5
RL: AGR (Agricultural use); BAC (Biological activity or effector, except
adverse); BSU (Biological study, unclassified); BIOL (Biological study);
USES (Uses)

IS (Uses)
(insecticidal activity of, against fire ant, delayed-action, structure
in relation to)

RN 52287-95-3 HCA

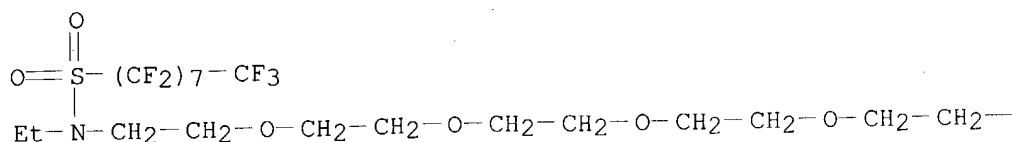
RN 52287-95-3 HCA
CN 1-Octanesulfonamide, N-ethyl-1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-N-[2-[2-(2-hydroxyethoxy)ethoxy]ethyl]- (9CI) (CA INDEX NAME)



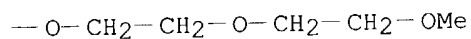
RN 87988-76-9 HCA

RN 87988-76-9 HCA
CN 1-Octanesulfonamide, N-ethyl-1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-N-3,6,9,12,15,18,21-heptaodocos-1-yl- (9CI) (CA INDEX NAME)

PAGE 1-A

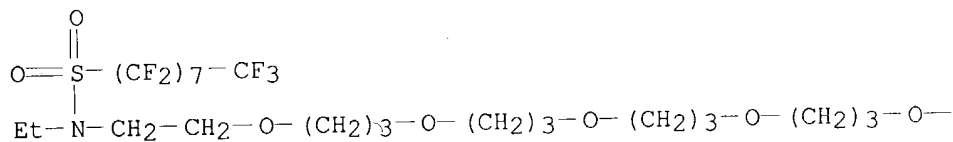


PAGE 1-B

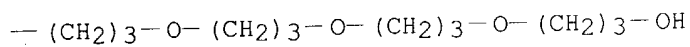


RN 100221-79-2 HCA
 CN 1-Octanesulfonamide, N-ethyl-1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-N-(34-hydroxy-3,7,11,15,19,23,27,31-octaoxatetratriacont-1-yl)- (9CI) (CA INDEX NAME)

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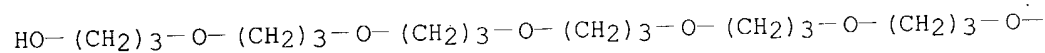


PAGE 1-B

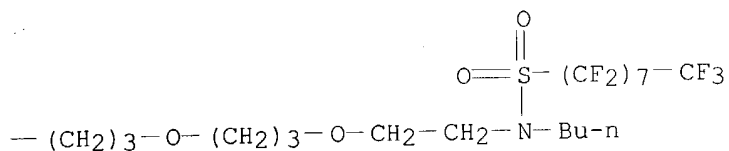


RN 100221-80-5 HCA
 CN 1-Octanesulfonamide, N-butyl-1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-N-(34-hydroxy-3,7,11,15,19,23,27,31-octaoxatetratriacont-1-yl)- (9CI) (CA INDEX NAME)

PAGE 1-A

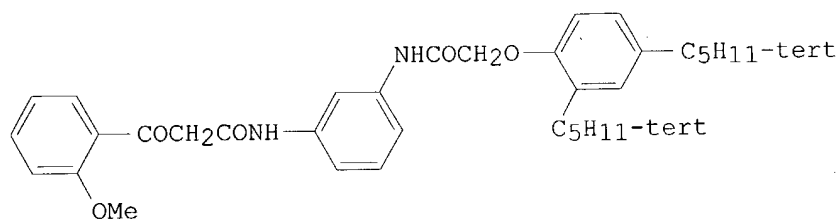


PAGE 1-B



L83 ANSWER 72 OF 77 HCA COPYRIGHT 2003 ACS on STN
 87:60742 Dispersion of photographic additives in photographic emulsions.
 Yoneyama, Masakazu; Mikami, Takeshi; Tsuji, Nobuo (Fuji Photo Film Co.,
 Ltd., Japan). Ger. Offen. DE 2619248 **19761111**, 49 pp.
 (German). CODEN: GWXXBX. APPLICATION: DE 1976-2619248 19760430.

GI



AB Fine, stable dispersions of oily photog. additives, such as couplers, UV-absorbers, and the like, in hydrophilic aq. colloid solns. can be prepd. by using 0.5-50 wt% of a fluorinated sulfonic acid as the anionic surfactant. Thus, a soln. contg. I 20, di-Bu phthalate 20, and EtOAc 40 g was dispersed in a 10.degree./aq. gelatin soln. contg. Monfluor 31 (fluorinated aliph. sulfonic acid Na salt) 1.0 g under high-speed stirring for 20 min, and cooled to 5.degree. and stored. The av. particle size of the dispersion immediately after prepn., after 15 days, and after 30 days was 0.10, 0.10, and 0.13 .mu., resp., vs. 0.22, 0.29, and 0.38 .mu., resp., for a control contg. Na dodecylbenzenesulfonate.

IT **63367-16-8**

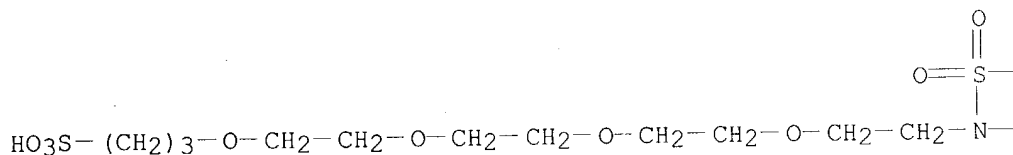
RL: USES (Uses)

(surfactant, anionic, in prepn. of stable dispersions of photog. couplers)

RN 63367-16-8 HCA

CN 3,6,9,12-Tetraoxapentadecane-15-sulfonic acid, 1-
 [[(heptadecafluorooctyl)sulfonyl]propylamino]-, sodium salt (9CI) (CA
 INDEX NAME)

PAGE 1-A



PAGE 1-B

— (CF₂)₇—CF₃

—Pr-n

L83 ANSWER 73 OF 77 HCA COPYRIGHT 2003 ACS on STN

87:11464 Hair creme rinses and hair conditioners containing hydrophobic-lipophobic perfluorinated compounds. Cella, John A.; Fiebig, August Emil, Jr.; Pum, Franz J. (Alberto-Culver Co., USA). U.S. US 4013786 **19770322**, 5 pp. (English). CODEN: USXXAM. APPLICATION: US 1974-474953 19740531.

AB Hair creme rinses and hair conditioners contg. minor proportions of hydrophobic-lipophobic perfluorinated compds. are extremely effective due to their substantial redn. of excess sebum or sebaceous secretions. Thus, a creme rinse to be left on the hair was formulated by dispersing 0.05% Antifoam AF in 83.20% H₂O with stirring and then mixing with 15.50% Arquad 2HT. Perfume (0.15%) was added to Arquad S50 and the resulting mixt. was combined with the aq. soln. Finally, 1.00% CF₃(CF₂)₇SO₂N(Me) (C₂H₄O)₈H [**62813-47-2**] was added.

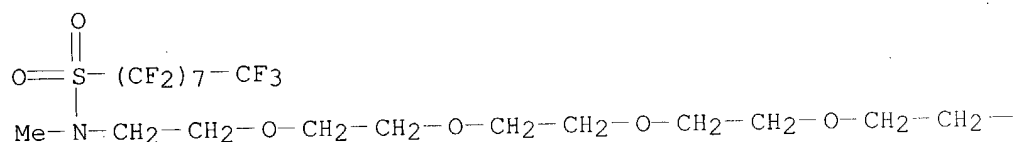
IT **62813-47-2**

RL: BIOL (Biological study)
(in hair conditioners and creme rinses)

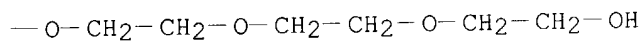
RN **62813-47-2** HCA

CN 1-Octanesulfonamide, 1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptafluoro-N-(23-hydroxy-3,6,9,12,15,18,21-hepta-oxatricos-1-yl)-N-methyl- (9CI) (CA INDEX NAME)

PAGE 1-A



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L83 ANSWER 74 OF 77 HCA COPYRIGHT 2003 ACS on STN

87:7433 Lubricants for coating synthetic fibers. Tashiro, Yutaka; Ito, Tadashi; Umaba, Toshihiko (Dainippon Ink and Chemicals, Inc., Japan). Jpn. Kokai Tokkyo Koho JP 52018993 **19770212** Showa, 8 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1975-91597 19750729.

AB A lubricant contg. 0.001-10% of a poly(oxyalkylene) contg. C₃-18 perfluoroalkyl groups with F content 2-70 wt. % and mol. wt. 300-200,000

was useful for coating polyester, polypropene, or nylon fibers. Thus, nylon 6 fibers were coated with a lubricant contg. mineral oil 80.0, polyethylene glycol mono(dodecylphenyl) ether 20.0, and a polymer [62891-44-5] (I; mol. wt. 4000; prepd. by polymg. a mixt. contg. C8F17SO2NEtCH2CH2OCOCMe:CH2 36, polypropylene glycol methacrylate 24, and lauryl mercaptan 3 parts) at 1000 m/min to give coated fibers with lubricant pickup ratio 1.33%, compared with 0.93% for fibers coated with a similar compn. without contg. I.

IT **62782-07-4**

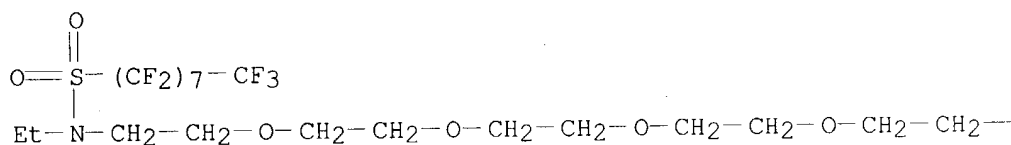
RL: USES (Uses)

(lubricants contg., for nylon fibers, with improved adhesion)

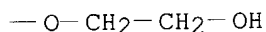
RN 62782-07-4 HCA

CN 1-Octanesulfonamide, N-ethyl-1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-N-(17-hydroxy-3,6,9,12,15-pentaoxaheptadec-1-yl)- (9CI)
(CA INDEX NAME)

PAGE 1-A



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IT **62828-49-3**

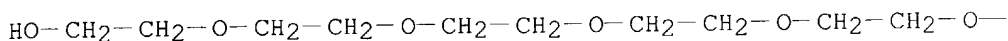
RL: USES (Uses)

(lubricants contg., surface tension of)

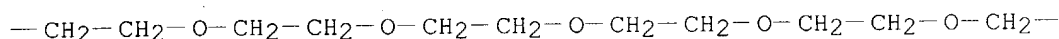
RN 62828-49-3 HCA

CN 1-Octanesulfonamide, 1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-N-(32-hydroxy-3,6,9,12,15,18,21,24,27,30-decaoxadotriacont-1-yl)-N-propyl- (9CI) (CA INDEX NAME)

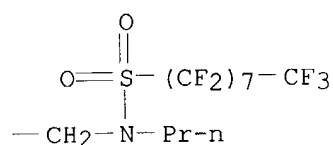
PAGE 1-A



PAGE 1-B



PAGE 1-C



L83 ANSWER 75 OF 77 HCA COPYRIGHT 2003 ACS on STN
 86:91243 Polyurethane foams. Masuda, Tsuyoshi; Shiroda, Hiroharu; Mai, Kazumi
 (Dainippon Ink and Chemicals, Inc., Japan). Jpn. Kokai Tokkyo Koho JP
 51123298 **19761027** Showa, 7 pp. (Japanese). CODEN: JKXXAF.
 APPLICATION: JP 1975-47502 19750421.

AB A polyurethane aq. dispersion is foamed in the presence of 0.001-5%
 surfactants contg. fluoroalkyl groups, and dried to give a polyurethane
 foam. Thus, a mixt. of 500 parts polypropylene glycol and 175 parts TD1
 was heated 2 h at 80.degree. to give a prepolymer (with NCO equiv 712)
 which was dissolved in 270 parts PhMe. A mixt. of 140 parts prepolymer
 soln. an 106 parts aq. soln. contg. 6 parts polyethylene glycol
 nonylphenyl ether was stirred 3 min to give an emulsion which was mixed
 with a chain extender soln. contg. 8.2 parts 1,6-hexamethylenediamine and
 30 parts H2O. The whole mixt. was stirred 2 h to give a stable
 polyurethane aq. dispersion which (100 parts) was mixed with 3 parts
 acrylic emulsion, dispersed uniformly, mixed with 0.3 part 25% aq. NH3 and
 5 parts 10% aq. C6F17SO2NEt(C2H4O)5H [**61776-75-8**], stirred 5
 min, cast on mold release paper, and dried to give a 0.7-mm soft spongy
 microporous sheet with sp. gr. 0.57.

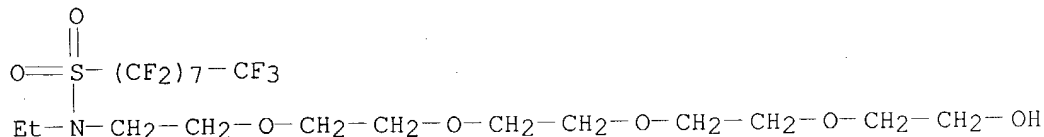
IT **61776-75-8**

RL: USES (Uses)

(surfactants, for polyurethane foam manuf.)

RN 61776-75-8 HCA

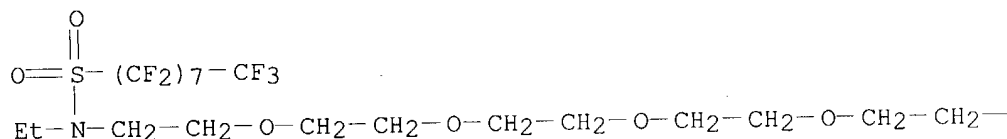
CN 1-Octanesulfonamide, N-ethyl-1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-
 heptafluoro-N-(14-hydroxy-3,6,9,12-tetraoxatetradec-1-yl)- (9CI) (CA
 INDEX NAME)



L83 ANSWER 76 OF 77 HCA COPYRIGHT 2003 ACS on STN
 80:126748 Antistatic radiographic films. Cavallo, Elio; Furlan, Fulvio
 (Minnesota Mining and Manufg. Co.). Ger. Offen. DE 2337638
19740221, 35 pp. (German). CODEN: GWXXBX. APPLICATION: DE

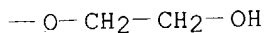
- 1973-2337638 19730724.
- AB Antistatic radiog. films of improved sliding ability were obtained by incorporating a fluorinated surfactant and a nonfluorinated betaine- and (or) N-oxide-type surfactant into the emulsion-protecting layers contg. nonfluorinated anionic surfactants. Thus, a radiog. film obtained by coating a polyester support on both sides with a common Ag(Br,I) emulsion and overcoating the emulsion with a protective gelatin layer contg. SiO₂ (delusterant), 0.72 g BuCH₂EtCH₂CO₂CH(SO₃Na)CH₂CO₂CH₂CH₂EtBu and 1.6 g BuCH₂EtCH₂CH₂CH(SO₃Na)CH₂CH₂CHMe₂/100 g gelatin (anion-active surfactants), and 0.25 g [C₈F₁₇SO₂NH(CH₂)₃NMe₃]⁺Cl⁻ (I) and 10 g coconut oil fatty acid-H₂N(CH₂)₃N+Me₃CH₂CO₂⁻ reaction product (II)/100 g gelatin had charge 1.5, -0.4, and 0 .mu.c/m² at relative humidity 25, 50, and 70%, resp., and sliding ability 550 g vs. 10, 10, and 0.3 .mu.c/m² and 890 g, resp., for a I- and II-free film.
- IT **52137-93-6**
RL: USES (Uses)
(antistatic agent, for radiog. films)
- RN 52137-93-6 HCA
CN 1-Octanesulfonamide, N-ethyl-1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptafluoro-N-(17-hydroxy-3,6,9,12,15-pentaoxaheptadec-1-yl)-, pentamethyl deriv. (9CI) (CA INDEX NAME)

PAGE 1-A



5 (D1-Me)

PAGE 1-B



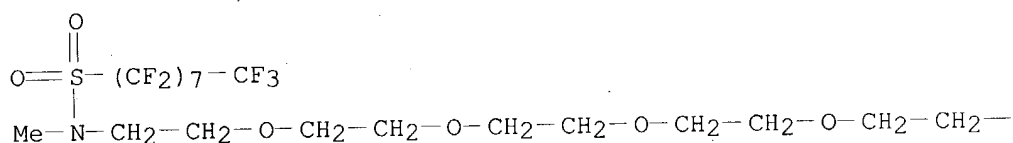
- L83 ANSWER 77 OF 77 HCA COPYRIGHT 2003 ACS on STN
54:28271 Original Reference No. 54:5471g-h Perfluoroalkanesulfonamides. Ahlbrecht, Arthur H.; Morin, Duane E. (Minnesota Mining & Manufg. Co.). US 2915554 **19591201** (Unavailable). APPLICATION: US .
- AB N-Ethyl-N-(2-hydroxyethyl)perfluorooctanesulfonamide (20 g.) in Me₂CO-Dry Ice with 0.8 g. 50% NaOH was treated with ethylene oxide (I); 15.5 g. I was absorbed to produce C₈F₁₇SO₂NetCH₂CH₂(OCH₂CH₂)₁₀OH. When propylene oxide was used, C₈F₁₇SO₂NetCH₂CH₂(OCH₂CHMe)₁₀OH was produced. Other surfactants of the general formula C₈F₁₇SO₂NRCH₂CH₂(OCH₂CH₂)_nOH were prepd.
- IT **594-99-0**, 1-Octanesulfonamide, 1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptafluoro-N-{2-{2-{2-{2-{2-{2-{2-{2-(2-hydroxyethoxy)}ethoxy}ethoxy}ethoxy}ethoxy}ethoxy}ethyl}-N-methyl-ethoxy}ethoxy}ethoxy}ethoxy}ethoxy}ethoxy}ethyl}-N-methyl-

85547-14-4, 1-Octanesulfonamide, N-ethyl-1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptafluoro-N-{2-{2-{2-{2-{2-{2-{2-{2-[2-(2-hydroxyethoxy)ethoxy]ethoxy}ethoxy}ethoxy}ethoxy}ethoxy}ethyl}-**109260-81-3**, 1-Octanesulfonamide, N-ethyl-1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptafluoro-N-{2-{2-{2-{2-{2-{2-{2-{2-[2-(2-hydroxypropoxy)propoxy]propoxy}propoxy}propoxy}propoxy}propoxy}ethyl}- (prepn. of)

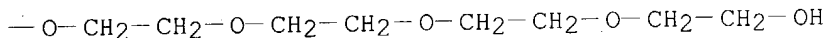
RN 594-99-0 HCA

CN 1-Octanesulfonamide, 1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptafluoro-N-(26-hydroxy-3,6,9,12,15,18,21,24-octaohexacos-1-yl)-N-methyl- (9CI) (CA INDEX NAME)

PAGE 1-A



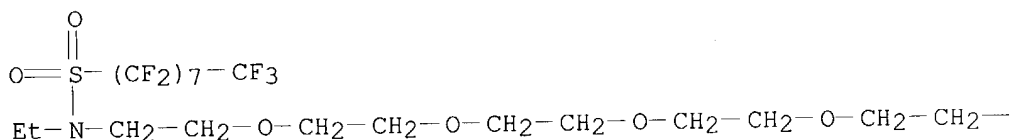
PAGE 1-B



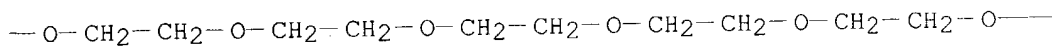
RN 85547-14-4 HCA

CN 1-Octanesulfonamide, N-ethyl-1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptafluoro-N-(32-hydroxy-3,6,9,12,15,18,21,24,27,30-decaoxadotriacont-1-yl)- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B

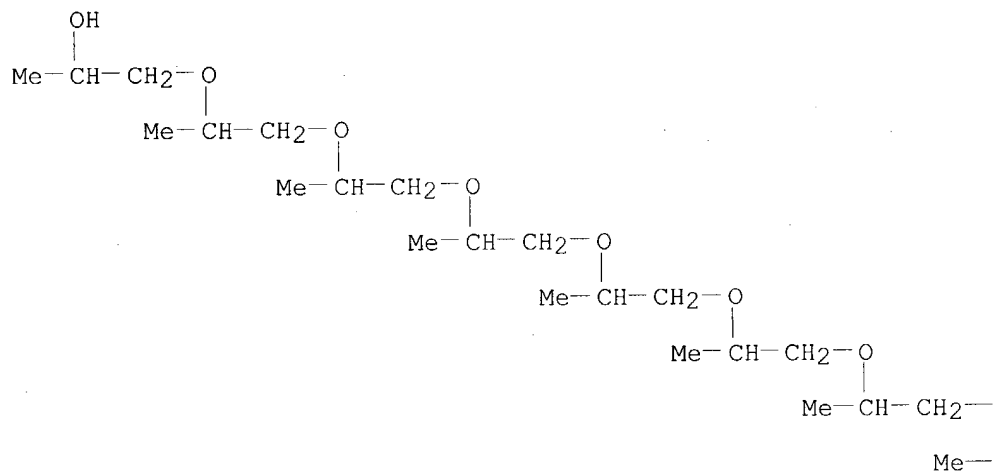


PAGE 1-C

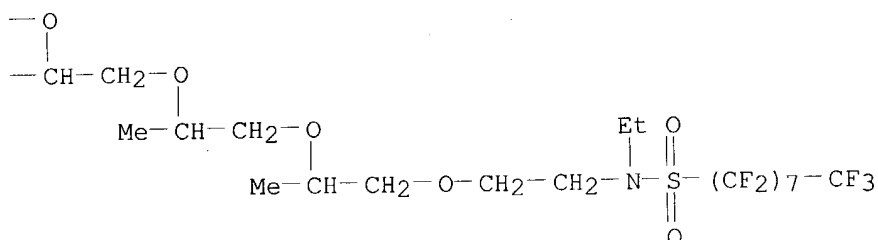
—CH₂—CH₂—OH

RN 109260-81-3 HCA
 CN 1-Octanesulfonamide, N-ethyl-1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-N-[2-[2-[2-[2-[2-[2-[2-[2-[2-(2-hydroxypropoxy)propoxy]propoxy]propoxy]propoxy]propoxy]propoxy]propoxy]propoxy]ethyl]- (6CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B

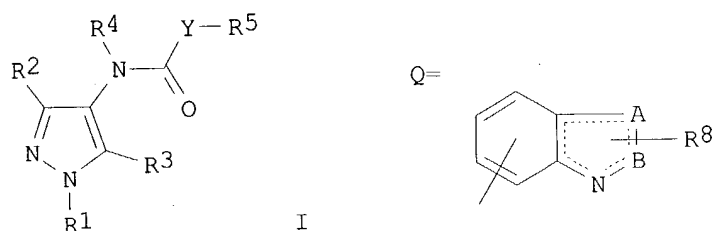


FYI - I included some of these records, even though the art is not electrical.

=> d L84 1,3,5,6-14 cbib abs hitstr

L84 ANSWER 1 OF 14 HCA COPYRIGHT 2003 ACS on STN
 136:279476 Preparation of N-(4-pyrazolyl)amide derivatives as bactericides, fungicides, insecticides, or nematocides for agricultural and horticultural use. Yamaguchi, Hiroshi; Endoh, Kazuyoshi; Machiya, Kouzou; Takemoto, Tsuyosi; Baba, Koji; Morimoto, Masayuki (Nihon Nohyaku Co., Ltd., Japan). PCT Int. Appl. WO 2002024656 A1 20020328, 322 pp.
 DESIGNATED STATES: W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG, TR. (Japanese). CODEN: PIXXD2. APPLICATION: WO 2001-JP8242 20010921. PRIORITY: JP 2000-289484 20000922; JP 2001-128225 20010425.

GI



AB N-(4-Pyrazolyl)amide derivs. of the general formula [I; R1 = H, C1-6 alkyl, C1-6 haloalkyl, C1-6 hydroxyalkyl, cyano-C1-6 alkyl, formyl-C1-6 alkyl, C2-6 alkenyl, halo C2-6 alkenyl, C2-6 alkynyl, halo C2-6 alkynyl, C1-6 alkoxy-C1-6 alkyl, halo-C1-6 alkoxy-C1-6 alkyl, optionally substituted phenylsulfonyl, optionally substituted Ph, etc.; R2, R3 = H, halo, cyano, NO2, OH, SH, NH2, C1-6 alkyl, halo-C1-6 alkyl, C2-6 alkenyl, halo-C2-6 alkenyl, C2-6 alkynyl, halo-C2-6 alkynyl, C1-6 alkoxy, halo-C1-6 alkoxy, C1-6 alkylthio, halo-C1-6 alkylthio, optionally substituted Ph or phenoxy, etc.; R4 = H, C1-6 alkyl, halo-C1-6 alkyl, cyano-C1-6 alkyl, C2-6 alkenyl, halo-C2-6 alkenyl, C2-6 alkynyl, halo-C2-6 alkynyl, C1-6 alkoxy-C1-6 alkyl, halo-C1-6 alkoxy-C1-6 alkyl, C1-6 alkoxy-C1-6 alkyl, C1-6 alkylthio-C1-6 alkyl, halo-C1-6 alkylthio-C1-6 alkyl, optionally substituted phenyl-C1-6 alkyl, optionally heterocyclyl-C1-6 alkyl, etc.; R5 = substituted Ph, Q, optionally substituted naphthyl; wherein R8 = H, halo, cyano, NO2, HO, NH2, cyano, C1-6 alkyl, halo-C1-6 alkyl, cyano-C1-6 alkyl, etc.; A = O, S, N, (un)substituted NH, (un)substituted CH; B = N, (un)substituted NH, (un)substituted C; Y = (un)substituted C1-6 alkylene or C2-6 alkenylene, etc.] are prepd. They are also useful for controlling aphids. Thus, 4-amino-5-chloro-1,3-dimethylpyrazole 0.20, 4-(4-cyanophenoxy)phenylacetic acid 0.35, 2-chloro-1-methylpyridinium iodide 0.38, and Et3N 0.15 g were dissolved in 10 mL THF and stirred at room temp. for 2 h to give 0.27 g 5-chloro-4-[4-(4-cyanophenoxy)phenylacetamido]-1,3-dimethylpyrazole (II). II protected apple seedlings against *Venturia inaequalis* by 90-100%.

IT **406188-81-6P**

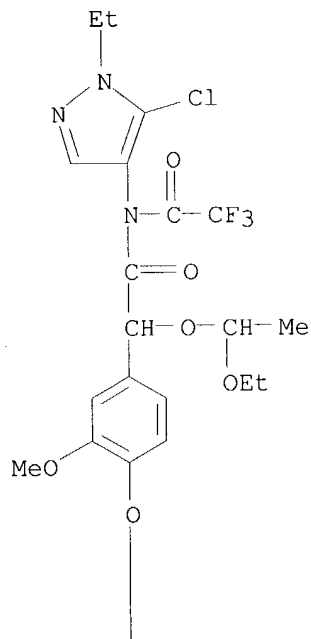
RL: AGR (Agricultural use); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of (4-pyrazolyl)amide derivs. as bactericides, fungicides, insecticides, nematocides, or aphicides for agricultural and horticultural use)

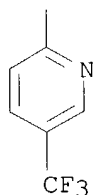
RN 406188-81-6 HCA

CN Benzeneacetamide, N-(5-chloro-1-ethyl-1H-pyrazol-4-yl)-.alpha.-(1-ethoxyethoxy)-3-methoxy-N-(trifluoroacetyl)-4-[[5-(trifluoromethyl)-2-pyridinyl]oxy]- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 2-A



L84 ANSWER 3 OF 14 HCA COPYRIGHT 2003 ACS on STN

125:142131 Preparation of fluorinated allylamides. Yamaguchi, Koichi; Kinoshita, Hirobumi; Yamamoto, Yasushi (Shinetsu Chem Ind Co, Japan). Jpn. Kokai Tokkyo Koho JP 08134031 A2 **19960528** Heisei, 10 pp.

(Japanese). CODEN: JKXXAF. APPLICATION: JP 1994-293732 19941101.

AB Rf1CON(CH2CH:CH2)(CH2)nRf2 (I: Rf1, Rf2 = C1-10 perfluoroalkyl, C5-15 perfluoroalkyl ether; n = 1-5), useful as monomers (no data) and intermediates for modifiers for silicones, are prepd. by treatment of Rf2(CH2)nNHCH2:CHCH2 (Rf2 = same as above) with Rf1COX (Rf1 = same as above; X = halo). Condensation of C4F9(CH2)2NHCH2CH:CH2 with F(CFCF3CF2O)2CFCF3COF in the presence of Et3N at room temp. to 50.degree. for 6 h gave 72% I [Rf1 = F(CFCF3CF2O)2CFCF3, Rf2 = C4F9, n = 2].

IT **179901-93-0P**

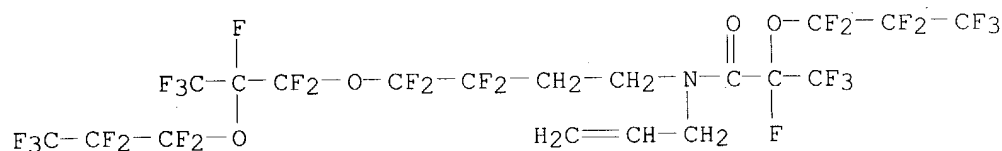
RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP (Preparation)

(prepn. of fluorinated allylamides by amidation)

RN 179901-93-0 HCA

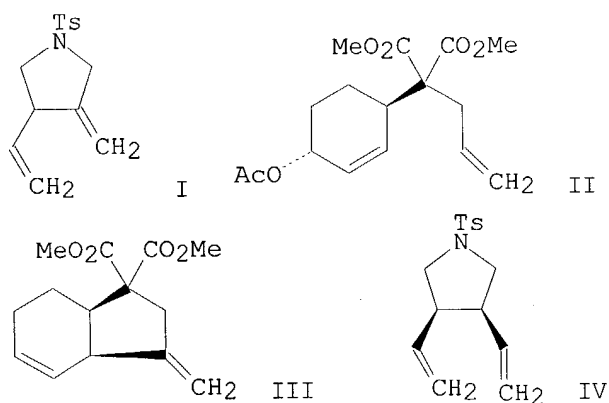
CN Propanamide, 2,3,3,3-tetrafluoro-2-(heptafluoropropoxy)-N-2-propenyl-N-

[3,3,4,4-tetrafluoro-4-[1,1,2,3,3,3-hexafluoro-2-(heptafluoropropoxy)propoxy]butyl]- (9CI) (CA INDEX NAME)



L84 ANSWER 5 OF 14 HCA COPYRIGHT 2003 ACS on STN
 120:298399 Rhodium(I)-catalyzed 'metallo-ene' cyclizations/.beta.-eliminations. Oppolzer, Wolfgang; Furstner, Alois (Dep. Chim. Org., Univ. Geneve, Geneve, CH-1211, Switz.). Helvetica Chimica Acta, 76(6), 2329-37 (English) 1993. CODEN: HCACAV. ISSN: 0018-019X. OTHER
 SOURCES: CASREACT 120:298399.

GI



AB Octadienyl carbonates, e.g. $\text{MeO}_2\text{COCH}_2\text{CH}:\text{CHCH}_2\text{NTsCH}_2\text{CH}:\text{CH}_2$ (Ts = 4-toluenesulfonyl) provide cyclic 1,4-dienes, e.g. I, when treated with Rh(I) complexes (1-10 mol-%) at 80.degree.. Similar cyclization of cyclohexenyl acetate II affords cis-fused hexahydroindene III. Analogous ring closure of $\text{MeO}_2\text{COCH}_2\text{CH}:\text{CHCH}_2\text{NTsCH}_2\text{CH}:\text{CHMe}$ yield preferably the cis-divinylpyrrolidine IV with Rh(I) catalysis but the trans-isomer when catalyzed by Pd(0). Azaoctadienyl carbonate $\text{MeO}_2\text{COCH}_2\text{CH}:\text{CHCH}_2\text{NTsCH}_2\text{CH}:\text{CH}_2$ undergoes elimination with $[\text{RhH}(\text{PPh}_3)_4]$ (5 mol-%, 80.degree.) in MeCN giving acyclic triene $\text{H}_2\text{C}:\text{CHCH}:\text{CHNTsCH}_2\text{CH}:\text{CH}_2$.

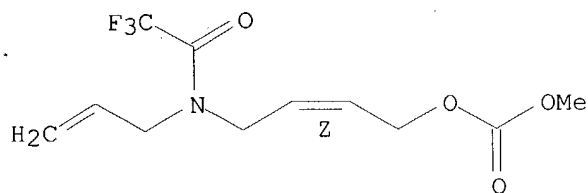
IT 153391-83-4P

RL: SPN (Synthetic preparation); PREP (Preparation)
 (prepn. and rhodium catalyzed metallo-ene cyclization reaction of)

RN 153391-83-4 HCA

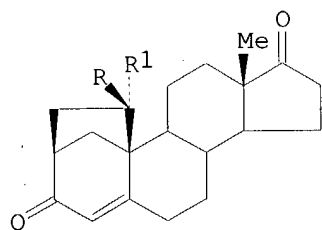
CN Carbonic acid, methyl 4-[2-propenyl(trifluoroacetyl)amino]-2-butenyl ester, (Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



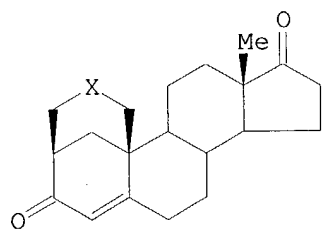
L84 ANSWER 6 OF 14. HCA COPYRIGHT 2003 ACS on STN
 120:100164 A-ring bridged steroids as potent inhibitors of aromatase. Peet,
 Norton P.; Johnston, J. O'Neal; Burkhardt, Joseph P.; Wright, C. Lee
 (Marion Merrell Dow Res. Inst., Cincinnati, OH, 45215, USA). Journal of
 Steroid Biochemistry and Molecular Biology, 44(4-6), 409-20 (English)
 1993. CODEN: JSBBEZ. ISSN: 0960-0760.

GI



I, R=H, R¹=OH

II, R=OH, R¹=H



III, X=O

IV, X=S

V, X=NH

VI, X=CH₂

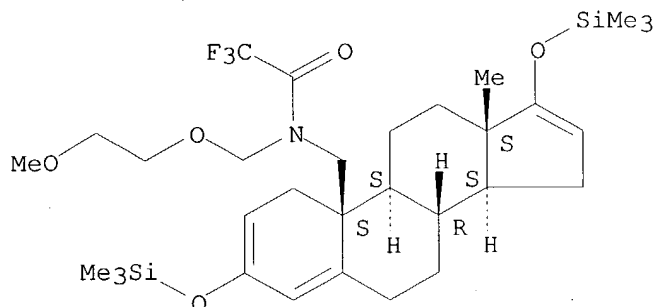
AB The design and synthesis of androstenedione derivs. with bridges spanning the 2,10-, 3,19-, 4,19-, and 6,19-positions are described. 2,19-Bridged compds., I and II, bearing OH groups on the 2-C bridge were designed as stable C analogs of potential lactol intermediates in the enzymic conversion of androgens to estrogens. I and II were competitive inhibitors of aromatase. Pyran III was a potent, time-dependent inhibitor of aromatase with partial NADPH dependence. These data suggested a mechanism of inhibition for III which involved both tight-binding competitive and mechanism-based components, with the former predominating. The S, NH₂, and all-C analogs of III were prepd. Thiopyran IV, piperidine V, and all-C analog VI were also time-dependent inhibitors of aromatase. VI was the most potent inhibitor and its time-dependent inhibition was not NADPH-dependent. The kinetics of V suggested uncompetitive inhibition.

IT 143033-65-2P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (prepn. and intramol. alkylation of)

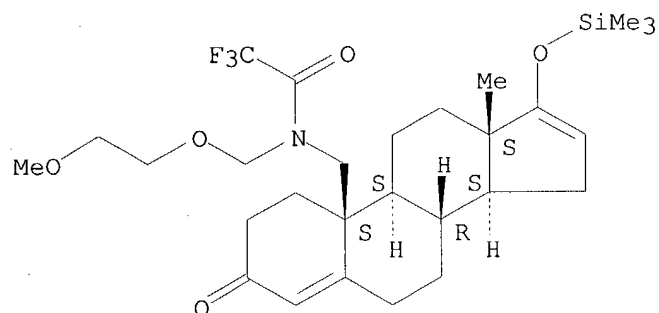
RN 143033-65-2 HCA
CN Acetamide, N-[3,17-bis[(trimethylsilyl)oxy]androsta-2,4,16-trien-19-yl]-
2,2,2-trifluoro-N-[(2-methoxyethoxy)methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



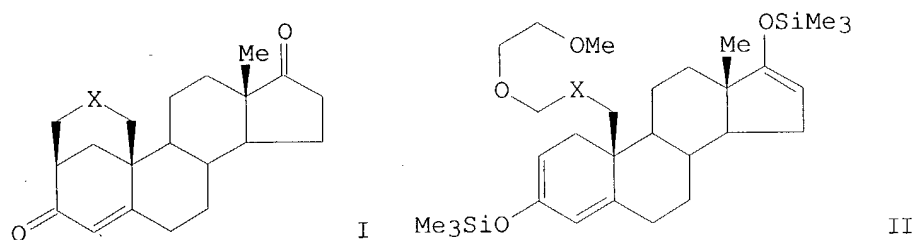
IT 151515-71-8P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)
(prepn. and trimethylsilylation of)
RN 151515-71-8 HCA
CN Acetamide, 2,2,2-trifluoro-N-[(2-methoxyethoxy)methyl]-N-[3-oxo-17-
[(trimethylsilyl)oxy]androsta-4,16-dien-19-yl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L84 ANSWER 7 OF 14 HCA COPYRIGHT 2003 ACS on STN
117:171805 Synthesis of 2,19-bridged androstenediones. Burkhardt, Joseph P.;
Huber, Edward W.; Laskovics, F. Mark; Peet, Norton P. (Marion Merrell Dow
Res. Inst., Cincinnati, OH, 45215, USA). Journal of Organic Chemistry,
57(19), 5150-4 (English) 1992. CODEN: JOCEAH. ISSN: 0022-3263.
OTHER SOURCES: CASREACT 117:171805.

GI



AB The syntheses of 2,19-(methyleneoxy)androst-4-ene-3,17-dione I (X = O), a potent, time-dependent inhibitor of human placental aromatase, and its thio, amino, and methylene analogs I (X = S, NH, CH₂) are described. The key step in the construction of I (X = O, S, NH) is a Lewis acid-mediated intramol. alkylation of an A-ring O-trimethylsilyl dienol ether II (X = O, S, NCOCF₃).

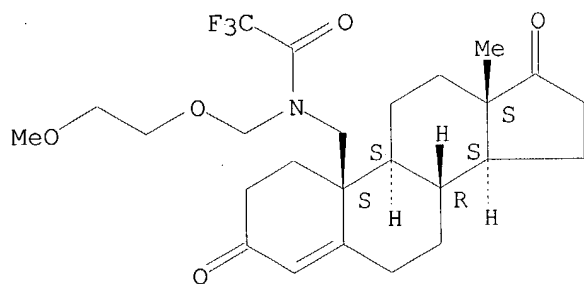
IT **142981-70-2P**

RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and sequential enolization and O-silylation of)

RN 142981-70-2 HCA

CN Acetamide, N-(3,17-dioxoandrost-4-en-19-yl)-2,2,2-trifluoro-N-[(2-methoxyethoxy)methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



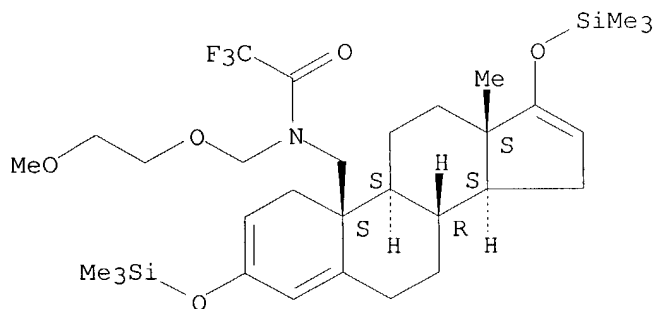
IT **143033-65-2P**

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)
(prepn. and titanium tetrachloride-mediated intramol. alkylation of)

RN 143033-65-2 HCA

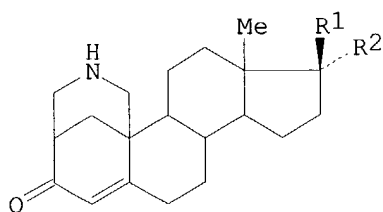
CN Acetamide, N-[3,17-bis[(trimethylsilyl)oxy]androsta-2,4,16-trien-19-yl]-2,2,2-trifluoro-N-[(2-methoxyethoxy)methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L84 ANSWER 8 OF 14 HCA COPYRIGHT 2003 ACS on STN
 117:131438 Preparation of 2.beta.,19-methyleneamino-bridged androstanes as
 aromatase inhibitors. Johnston, J. O'Neal; Peet, Norton P.; Burkhart,
 Joseph P. (Merrell Dow Pharmaceuticals, Inc., USA). PCT Int. Appl. WO
 9209619 A1 **19920611**, 17 pp. DESIGNATED STATES: W: AU, CA, FI,
 HU, JP, KR, NO; RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, NL, SE.
 (English). CODEN: PIXXD2. APPLICATION: WO 1991-US7810 19911117.
 PRIORITY: US 1990-621183 19901130.

GI



I

AB Title compds. (I; R1 = OH and R2 = H or R1R2 = O) were prepd. Thus,
 19-(trifluoroacetamido)androst-4-ene-3,17-dione was converted in 4 steps
 to I (R1R2 = O) (II) which had Ki of 259 nM for half-maximal inactivation
 of aromatase in vitro. A tablet and capsule formulation comprising II is
 given.

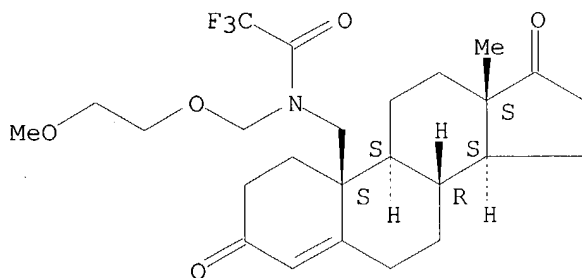
IT **142981-70-2P 143033-65-2P**

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)
 (prepn. and reaction of, in prepn. of aromatase inhibitors)

RN 142981-70-2 HCA

CN Acetamide, N-(3,17-dioxoandrost-4-en-19-yl)-2,2,2-trifluoro-N-[(2-
 methoxyethoxy)methyl]- (9CI) (CA INDEX NAME)

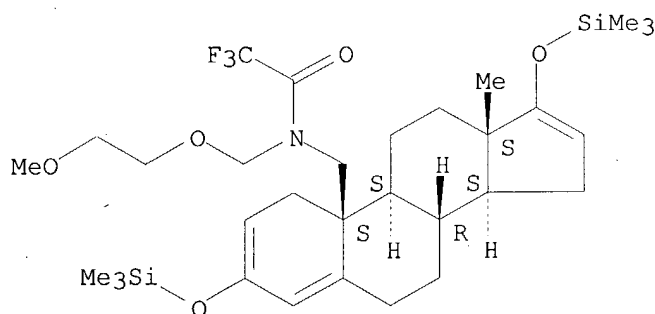
Absolute stereochemistry.



RN 143033-65-2 HCA

CN Acetamide, N-[3,17-bis[(trimethylsilyl)oxy]androsta-2,4,16-trien-19-yl]-2,2,2-trifluoro-N-[(2-methoxyethoxy)methyl]- (9CI) (CA INDEX NAME)

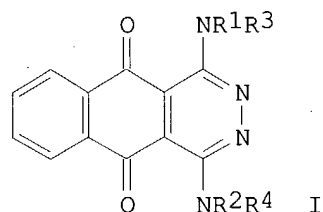
Absolute stereochemistry.



L84 ANSWER 9 OF 14 HCA COPYRIGHT 2003 ACS on STN

115:114529 Preparation of 1,4-bis(alkylamino)-2,3-diazaanthracene-9,10-diones as antitumor agents. Gandolfi, Carmelo A.; Johnson, Francis; Menta, Ernesto; Spinelli, Silvano; Tognella, Sergio (Boehringer Biochemia Robin S.p.A., Italy). PCT Int. Appl. WO 9106540 A1 **19910516**, 38 pp.
 DESIGNATED STATES: W: AU, BB, BG, BR, CA, FI, HU, JP, KP, KR, LK, MC, MG, MW, NO, RO, SD, SU, US; RW: AT, BE, BF, BJ, CF, CG, CH, CM, DE, DK, ES, FR, GA, GB, GR, IT, LU, ML, MR, NL, SE, SN, TD, TG. (English). CODEN: PIXXD2. APPLICATION: WO 1990-EP1794 19901023. PRIORITY: IT 1989-22175 19891027.

GI



AB Title compds. I [R1, R2 = H, RCO; R = H, Ph, C7-10 aralkyl, (substituted) C1-6 alkyl, etc.; R3, R4 = H (substituted) C2-10 alkyl, Ph, heterocyclyl, (un)substituted NH2, etc.] and a salt thereof, are prepd. H2SO4 was added

to 1,4-bis[N-(2-dimethylaminoethyl)-N-acetamido]-2,3-diazaanthracene in AcOH at room temp. followed by aq. CrO₃ and AcOH, heated at 60.degree. for 4 h, cooled, treated with Me₂CHOH, made alk. to give a mixt. of diazaanthracenedione. This mixt. in H₂O and HCl was heated at 90.degree. for 8 h to give after workup I (R₁ = R₂ = H, R₃ = R₄ = Me₂NCH₂CH₂) (II). II showed an ID₅₀ of 1 .times. 10⁻⁸ M against human colon endocarcinoma xenograft.

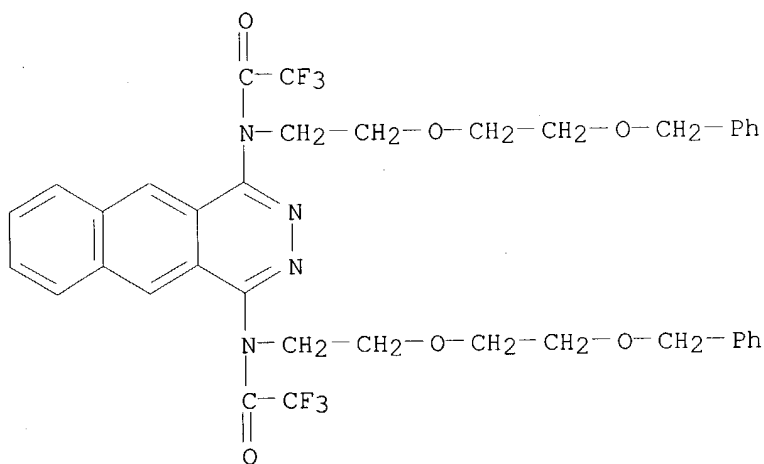
IT **135810-81-0P**

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(prepn. and reaction of, in prepn. of antitumor agents)

RN 135810-81-0 HCA

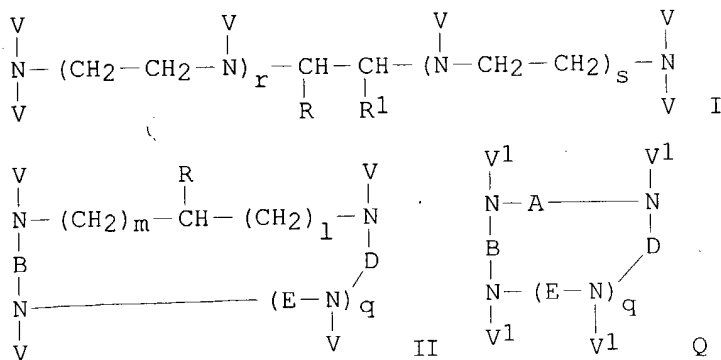
CN Acetamide, N,N'-benzo[g]phthalazine-1,4-diylbis[2,2,2-trifluoro-N-[2-[2-(phenylmethoxy)ethoxy]ethyl]- (9CI) (CA INDEX NAME)



L84 ANSWER 10 OF 14 HCA COPYRIGHT 2003 ACS on STN

112:135602 Cyclic aliphatic aza complexants, complexes and complex salts, process for their preparation and pharmaceutical agents containing them. Deutsch, Julius; Conrad, Juergen (Schering A.-G., Fed. Rep. Ger.). Eur. Pat. Appl. EP 305320 A2 **19890301**, 37 pp. DESIGNATED STATES: R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE. (German). CODEN: EPXXDW. APPLICATION: EP 1988-730187 19880823. PRIORITY: DE 1987-3728525 19870824.

GI



AB The aliph. aza derivs. I and II [B, D, E = (CH₂)_k(CHR₂)_n(CH₂)_l; R, R₁, R₂ = H, (un)substituted alkylene having terminal functional group or macromol.; V = Q, radical related to I or II; A = (CH₂)_mCHR₂(CH₂)_l; V₁ = V, CH₂X; X = CO₂Y, PO₃HY; Y = H, metal; k, l = 0-5; m = 1-5; n = 0, 1; q = 0-2; r = 0-3] are prepd. as complexing agents and complexes for diagnosis and therapy (no data). A soln. of 3-aza-1-(4-hydroxybenzyl)-N,N,N,N,N-pentakis-(8-aza-2-hydroxy-4-oxa-6,10-diaminodecyl)pentane-1,5-diamine (prepn. given) and Et₃N in MeOH was treated with a soln. of di-tert-Bu 3,6,9-triaza-3,6,9-tris(tert-butoxycarbonylmethyl)-4-[(oxiranylmethoxy)methyl]undecanedicarboxylate in MeOH, followed by refluxing for 36 h, to give 3-aza-1,5-diamino-2-(4-hydroxybenzyl)-N,N,N,N,N-pentakis[8-aza-6,10-diamino-2-hydroxy-4-oxa-N',N',N',N',N'-pentakis-2-hydroxy-4-oxa-6,10-bis[di(carboxymethylamino)]-8-(carboxymethylaza)decyldecyl]pentane, which was converted into Gd complexes.

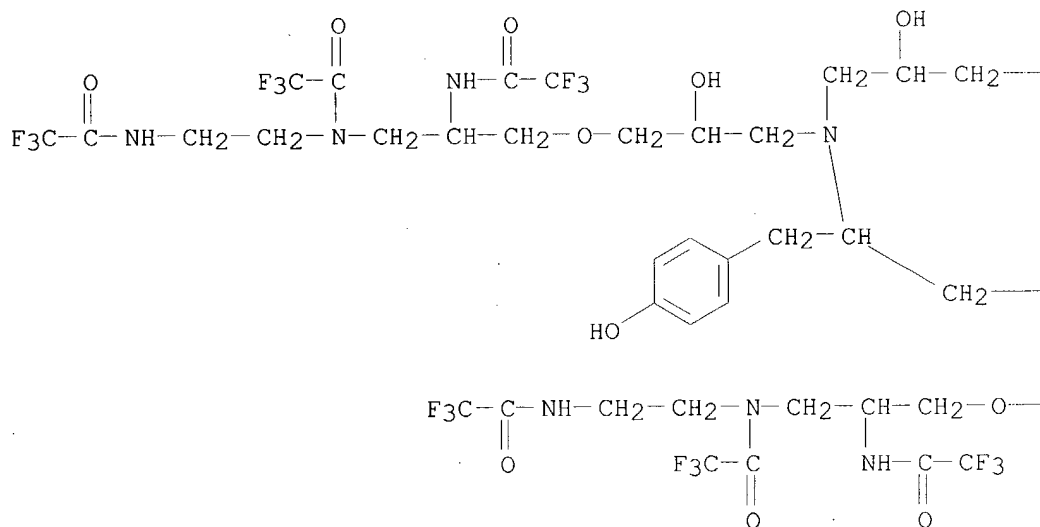
IT **125080-56-0P**

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and redn. of)

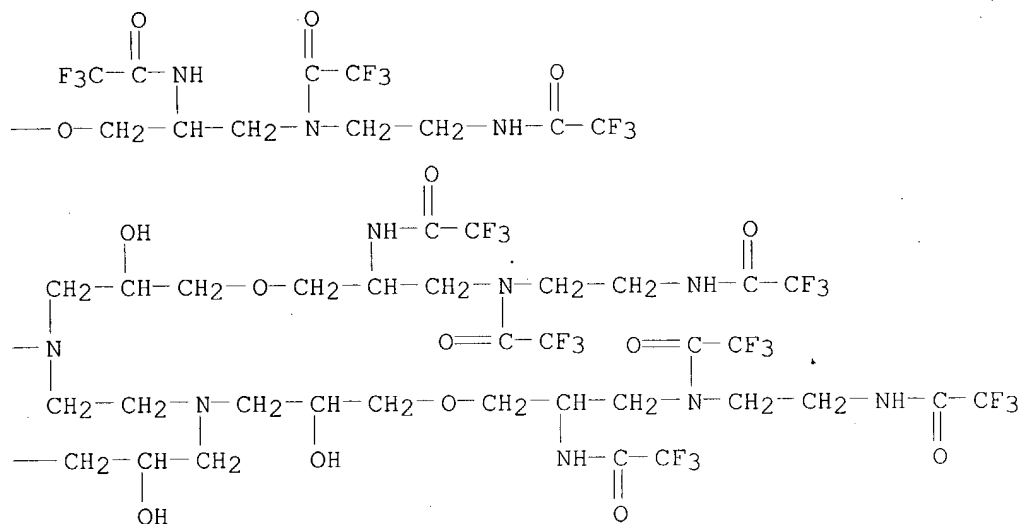
RN 125080-56-0 HCA

CN Acetamide, N,N'-[6,16-dihydroxy-9-[(4-hydroxyphenyl)methyl]-8,11,14-tris[2-hydroxy-3-[3-[(trifluoroacetyl)[2-[(trifluoroacetyl)amino]ethyl]amino]-2-[(trifluoroacetyl)amino]propoxy]propyl]-3,25-bis(trifluoroacetyl)-2,20-bis[(trifluoroacetyl)amino]-4,18-dioxa-8,11,14-triazaheneicosane-1,21-diyl]bis[2,2,2-trifluoro-N-[2-[(trifluoroacetyl)amino]ethyl]- (9CI) (CA INDEX NAME)

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L84 ANSWER 11 OF 14 HCA COPYRIGHT 2003 ACS on STN
 110:125253 Silver halide photographic material having improved antistatic property by combination of poly(oxyethylene) compd. and polyvalent alcohol. Sakuma, Haruhiko; Taguchi, Masaaki (Konica Co., Japan). Jpn. Kokai Tokkyo Koho JP 63125936 A2 **19880530** Showa, 14 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1986-271793 19861117.

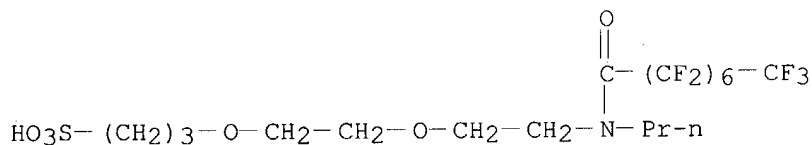
GI For diagram(s), see printed CA Issue.

AB The claimed photog. material contains (1) a poly(oxyethylene) compd. in .gtoreq.1 layer(s) of the emulsion side of the support and (2) 0.02-0.6 g/m² of a polyvalent alc. in the back side. It has improved antistatic and antiblocking properties. Thus, the mentioned advantages were shown in a black-and-white photog. film in which poly(oxyethylene) compd. I was added to the protective layer and diethylene glycol to the backing layer.

IT **116058-25-4**
 RL: USES (Uses)
 (antistatic photog. material backing layer contg.)

RN 116058-25-4 HCA

CN 1-Propanesulfonic acid, 3-[2-[2-[(2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluoro-1-oxooctyl)propylamino]ethoxy]ethoxy]-, sodium salt (9CI)
 (CA INDEX NAME)



● Na

L84 ANSWER 12 OF 14 HCA COPYRIGHT 2003 ACS on STN
 84:52080 Improving the surface properties of photographic material. Horie, Ikutaro; Kakimi, Fujio; Yoneyama, Masakazu; Yamamoto, Nobuo (Fuji Photo

Film Co., Ltd., Japan). Ger. DE 2444421 **19750327**, 37 pp.
(German). CODEN: GWXXAW. APPLICATION: DE 1974-2444421 19740917.

AB The sticking of protective layers, interlayers, back layers, or image receptor layers to the hydrophilic surface of a photog. material can be decreased by treatment of the layers with a soln. of an org. fluoro compd. contg. .gtoreq.3 F atoms and .gtoreq.3 C atoms in an appropriate solvent. Thus, a gelatin-Ag halide emulsion layer on a poly(ethylene terephthalate) support was coated with a gelatin-phthalated gelatin (9:1) protective layer contg. CF₃(CF₂)₇SO₂NetCH₂CO₂Na (I) 15.6 mg/m², dried, cut into a 4 .times. 4 cm sheet, stored at 35.degree. and 90% relative humidity for 2 days, and then stored at 35.degree. and 90% relative humidity under an 800 g load for 1 day to given a .ltoreq.40% adherence of the protective layer to the emulsion vs. .gtoreq.81% for a I-free control.

IT **57680-75-8**

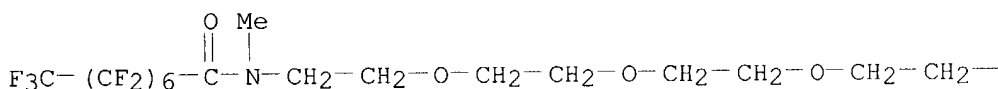
RL: USES (Uses)

(photog. film protective layers contg., for decreased adhesion)

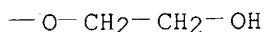
RN 57680-75-8 HCA

CN Octanamide, 2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluoro-N-(14-hydroxy-3,6,9,12-tetraoxatetradec-1-yl)-N-methyl- (9CI) (CA INDEX NAME)

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L84 ANSWER 13 OF 14 HCA COPYRIGHT 2003 ACS on STN

84:24384 Static-resistant photographic silver halide materials. Sugimoto, Naohiko; Nagao, Kameji; Horie, Ikutaro; Yoneyama, Masakazu; Yamamoto, Nobuo; Nakayama, Yasuhiro (Fuji Photo Film Co., Ltd., Japan). Ger. Offen. DE 2505909 **19750814**, 62 pp. (German). CODEN: GWXXBX.
APPLICATION: DE 1975-2505909 19750213:

AB The addn. of 2-200 mg/m² of an org. compd. with .gtoreq.3 F atoms to the surface layer of a photog. Ag halide emulsion lowers its tendency to tackiness at high humidities. By the addn. of 0.25-25 times its wt. of a carboxy compd. with a mol. wt. of 120-500 the resulting tendency to accept neg. static charges is overcome. Thus, a polyester film carrying a Ag halide emulsion and a top layer contg. gelatin 1.75 g and a phthaloylated gelatin 200 mg, and hardened by (per 100 g) 400 mg Na 2-hydroxy-4,6-dichloro-s-triazine had satisfactory tackiness- and static-resistant properties if it contained CF₃(CF₂)₇SO₂NetCH₂CO₂Na 2 and C₁₅H₃₁CON(C₃H₇)C₂H₄CO₂Na 1 g.

IT **57680-75-8**

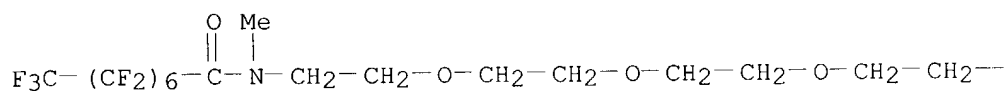
RL: USES (Uses)

(photog. silver halide gelatin emulsions contg. carboxylic acids and, for improved nontacky and static-resistant properties)

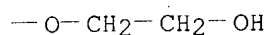
RN 57680-75-8 HCA

CN Octanamide, 2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluoro-N-(14-hydroxy-3,6,9,12-tetraoxatetradec-1-yl)-N-methyl- (9CI) (CA INDEX NAME)

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L84 ANSWER 14 OF 14 HCA COPYRIGHT 2003 ACS on STN

73:36506 Polymers of unsaturated acids and textiles treated with these polymers. Kleiner, Eduard K.; Knell, Martin; Pacini, Pier L. (Geigy, J. R., A.-G.). Fr. Demande FR 2009407 **19700206**, 31 pp. (French). CODEN: FRXXBL. PRIORITY: US 19680527.

AB Cotton, wool, and Dacron textiles are waterproofed and oilproofed with polymers and copolymers of perfluoroamido esters of fumaric, itaconic, or thiofumaric acids. Bis[2-(n-perfluorooctanamido)ethyl]fumarate, prepd. from 2-(n-perfluorooctanamido)ethanol and fumaroyl chloride, was polymd. in a sealed tube in hexafluoroxylene in the presence of BzOOBu-tert to give 85% of a white polymer useful for water- and oilproofing of textiles. The perfluoroamido esters may be copolymd. with styrene, alkoxyethylenes, or vinyl acetate. Poly(n-octyl methacrylate) may be added to the finishing compns.

IT **26279-58-3**

RL: USES (Uses)
(textile finishing with)

RN 26279-58-3 HCA

CN Fumaric acid, diester with N-ethyl-2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluoro-N-(2-hydroxyethyl)octanamide (8CI) (CA INDEX NAME)

Double bond geometry as shown.

